

## Sequence Listing

<110> Lightfoot, David  
Meksem, Khalid  
<120> ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI  
UNDERLYING RESISTANCE TO SOYBEAN CYST NEMATODE AND SOYBEAN SUDDEN DEATH  
SYNDROME AND METHODS EMPLOYING SAME  
<130> 1268/4/2  
<150> 60/178,811  
<151> 2000-01-28  
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ttgacttgag agaactcagg tatcaatcta aaagcaacgc tgttcacctt gagctgaaac
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acctggagga gaaagcaaag caaaccaaac gcgagagaga aataaagaac ggaaacagag
240

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300

ggtcaataag cgtaacctgg ctgaggagag cctcggcgcc gtccttgctg aagcagaaga
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720

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780

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1020

aaatttaact caagctcatt tgtggaaat attcaactat gtgggtacag cccttcaacc  
1080

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1200

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1260

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1320

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1440

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1740

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1860

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1920

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1980

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2460

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2760

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2880

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2940

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3000

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35 40 45

Gln Gly Leu Arg Lys Leu Ser Leu His Asp Asn Gln Ile Gly Gly Ser  
50 55 60

Ile Pro Ser Thr Leu Gly Leu Leu Pro Asn Leu Arg Gly Val Gln Leu  
65 70 75 80

Phe Asn Asn Arg Leu Thr Gly Ser Ile Pro Leu Ser Leu Gly Phe Cys  
85 90 95

Pro Leu Leu Gln Ser Leu Asp Leu Ser Asn Asn Leu Leu Thr Gly Ala  
100 105 110

Ile Pro Tyr Ser Leu Ala Asn Ser Thr Lys Leu Tyr Trp Leu Asn Leu  
115 120 125

Ser Phe Asn Ser Phe Ser Gly Pro Leu Pro Ala Ser Leu Thr His Ser  
130 135 140

Phe Ser Leu Thr Phe Leu Ser Leu Gln Asn Asn Leu Ser Gly Ser  
145 150 155 160

Leu Pro Asn Ser Trp Gly Gly Asn Ser Lys Asn Gly Phe Phe Arg Leu  
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 Gln Asn Leu Ile Leu Asp His Asn Phe Phe Thr Gly Asp Val Pro Ala  
 180 185 190  
 Ser Leu Gly Ser Leu Arg Glu Leu Asn Glu Ile Ser Leu Ser His Asn  
 195 200 205  
 Lys Phe Ser Gly Ala Ile Pro Asn Glu Ile Gly Thr Leu Ser Arg Leu  
 210 215 220  
 Lys Thr Leu Asp Ile Ser Asn Asn Ala Leu Asn Gly Asn Leu Pro Ala  
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 245 250 255  
 Leu Leu Asp Asn Gln Ile Pro Gln Ser Leu Gly Arg Leu Arg Asn Leu  
 260 265 270  
 Ser Val Leu Ile Leu Ser Arg Asn Gln Phe Ser Gly His Ile Pro Ser  
 275 280 285  
 Ser Ile Ala Asn Ile Ser Ser Leu Arg Gln Leu Asp Leu Ser Leu Asn  
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 Asn Phe Ser Gly Glu Ile Pro Val Ser Phe Asp Ser Gln Arg Ser Leu  
 305 310 315 320  
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 325 330 335  
 Leu Leu Ala Lys Lys Phe Asn Ser Ser Phe Val Gly Asn Ile Gln  
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 Gln Gly Val Ile Ala Pro Pro Glu Val Ser Lys His His His His  
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 Arg Lys Leu Ser Thr Lys Asp Ile Ile Leu Ile Val Ala Gly Val Leu  
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 405 410 415  
 Arg Lys Arg Ser Thr Ser Lys Ala Gly Asn Gly Gln Ala Thr Glu Gly  
 420 425 430  
 Arg Ala Ala Thr Met Arg Thr Glu Lys Gly Val Pro Pro Val Ala Gly  
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 Gly Asp Val Glu Ala Gly Gly Glu Ala Gly Gly Lys Leu Val His Phe  
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Asp Gly Pro Met Ala Phe Thr Ala Asp Asp Leu Leu Cys Ala Thr Ala  
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Glu Ile Met Gly Lys Ser Thr Tyr Gly Thr Val Tyr Lys Ala Ile Leu  
 485 490 495

Glu Asp Gly Ser Gln Val Ala Val Lys Arg Leu Arg Glu Lys Ile Thr  
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Lys Gly His Arg Glu Phe Glu Ser Glu Val Ser Val Leu Gly Lys Ile  
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Arg His Pro Asn Gly Leu Ala Leu Arg Ala Tyr Tyr Leu Gly Pro Lys  
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Gly Glu Lys Leu Leu Val Phe Asp Tyr Met Ser Lys Gly Gly Leu Leu  
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Leu Phe Tyr Met Glu Gly Ser Cys Ala Gly Ser Phe Ile Lys Val Leu  
 565 570 575

Cys Val Leu Val Phe Asn Tyr Asn Leu Glu Phe Tyr Leu Ser Asn Leu  
 580 585 590

Tyr Asn Ser Asn Arg Arg Thr Val Gln Thr Lys Thr Pro Lys Glu Gln  
 595 600 605

His Leu Xaa Phe Asn Ile Pro Tyr Gln Xaa Ser Glu Ile Phe Ser Trp  
 610 615 620

Ser Ser Xaa Cys Arg Gly Asn Xaa Thr Phe Ile Ile Gly His Lys Met  
 625 630 635 640

Lys Ile Xaa Gln Asp Leu Ala Val Ala Cys Ser Pro Ser Phe Pro Glu  
 645 650 655

Thr Ser Tyr Met Asp Leu Xaa Ser Ser Asn Val Cys Xaa Xaa Asn Xaa  
 660 665 670

Met Leu Lys Leu Gln Phe Trp Ser Phe Ser Val Asp Val Asn Cys Cys  
 675 680 685

Xaa Phe Gln Arg Asp Ser Tyr Ser Trp Ser Ile Gly Ile Pro Gly Thr  
 690 695 700

Xaa Ala Leu Lys Ala Gln Glu Ser Lys His Xaa Asn Xaa Tyr Leu Gln  
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Ser Trp Cys Tyr Leu Val Arg Thr Pro Asn Glu Glu Ile Thr Trp Gly  
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Val Tyr Glu Trp Thr Arg Phe Ala Ser Val Gly Cys Leu Ser Cys Gln  
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Arg Gly Val Asp Lys Xaa Gly Phe Xaa Cys Arg Leu Asp Glu Arg Cys  
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Ile His Ser Trp Arg Arg Val Ala Lys His Val Glu Ala Arg Phe Ala  
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Leu Cys Xaa Ser Phe Ser Ile Ser Thr Thr Arg Ser Ser Ser Ser Ser  
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caagtttcag gacaagtaat gcagaattat ggaaaagcaa tctgactaag acaaaagagc  
 180

ttcagagatt aacagaaaaat agtgagccag aaaaaagatt gcgagacaga aattggtcgc  
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caacaaaaag ttgtctcttt tataattttt aattgaaatt ttcttaattt agctaacatg  
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acttcctacg gccacaattt cgtttgcaga cactaaaaaa acttgatgtt gcagcaaaaa  
 360

tcacgttta ttattattt atgtcaatta tttaacagtt ttatgtttagg tttaataaca  
 420

gtagggtat gcaagaggct aaacattaat cagaaattga aaggcagggn tattacttct  
 480

tatccatata ctgattgagc gggcctgaa gaatagcggg aaaaacttca agcgccagag  
 540

acaatagttt ttctttca aacagcgcct atgcaaattt tcctaatctc aagcttcaat  
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tcctatcgat tcgaaccgga cttgntctgn ttnacctaaa tccccactcg gcattnatna  
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naatct  
726

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gacaaaattg gccaacttca aggccctcagg aagcttagtc ttcatgataa ccaaattgg  
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ggttcaatcc cttcaacttt gggacttctt cccaacctta gaggggttca gttattcaac  
240

aataggccta cagggtccat acctctttct ttaggtttct gccccttgct tcagtctctt  
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gacctcagca acaacttgct cacaggagca atcccttata gtcttgctaa ttccactaag  
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ctttattggc ttaacttgag tttcaactcc ttctctggc ctttaccagc tagcctaact  
420

cactcattt ctctcacttt tctttctctt caaaataaca atctttctgg ctcccttcct  
480

aactcttggg gtgggaattc caagaatggc ttctttaggc ttcaaaattt gatcctagat  
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cataacttt tcactggtga cgttcctgct tctttggta gcttaagaga gctcaatgag  
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acccacaaaa atgggcaact tnaaagnctc angaagctta atcttnatga aaaccaaaat
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aacaataggn ttacagggtc catacccttt tctttaaggt tctgccctt gnttcagnct
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cttgacctca acaacaactt gctnacagga agcaatccct tatagtcttg ctaattccac
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taagctttat tggcttaact ttgagnttca actnctttct ntgggncttt accaactagn
420

ctaactcaact cattttctct cactttttt tntntttaaa aaaacaaaca tttntngntt
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atcctanaac ataacttt
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<222> (1)..(794)
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120

atcaccgaca aaattggcca acttcaaggc ctcaggaagc ttagtcttca tgataaccaa
180

attggtggtt caatcccttc aactttggga cttcttccca accttagagg gtttcagtt
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ttcaacaata ggcttacagg ttccataacct ctttctttag gtttctgccc tttgcttcag
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accgacaaaaa ttggccaact tcaaggcctc aggaagctta gtcttcatga taaccaaatt  
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ggtggtcaat cccttcaact ttgggacttc ttccaacccctt agaggggttc aagttattca  
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acaataggct tacaggttcc atacctttt ctttaggttt ctgccttgc cttcaagtct  
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cttgacacctca gcaacaactt gctcacagga gcaatccctt atagtcattgc taattccact  
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aagctttattt ggcttaactt gagttcaac tncttctctg gnccttacc agctagccta  
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 ctggcattt taaaatgcct tgaangggac ttgnccgctn cccctntaat tatccncctt  
 720  
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 780  
 g  
 781

<210> 20  
 <211> 861  
 <212> DNA  
 <213> soybean  
 <220>  
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 60  
 caagtgtgct cagggacagg ttattgtat ccagcttcct tgaaagggtt tgaggggtcg  
 120  
 aatcaccgac aaaattggcc aacttcaagg cctcaggaag cttagtcttc atgataacca  
 180  
 aattgggtgt tcaatccctt caactttggg acttcttccc aaccttagag gggttcagtt  
 240  
 attcaacaat aggcttacag gttccataacc tctttcttta ggttctgcc ctggcttca  
 300  
 gtctcttgac ctcagcaaca acttgctcac aggagcaatc ctttatagtc ttgctaattc  
 360  
 cactaagctt tattggctta acttgagttt caactccttc tctggcctt taccagctag  
 420  
 cctaactcac tcattttctc tcactttctt ttctcttcaa aataacaatc tttctggctc  
 480  
 ctttcctaac tcttgggtg ggaattccaa gaatggcttc tttaggcttc aaaatttgat  
 540

cctagatcat aacttttca ctggtagacgt tcctgcttct ttgggttagct taagagagct  
 600  
 caatgagatt tcccttagtc ataataaaagt ttaatggagc tataccaaat gaaataggaa  
 660  
 ccctttctan gcttaaacac ttgacatttn taataatgnc ttgaatggga acttgccgc  
 720  
 taccctctnt aattatcctn cttacactgn tgaatgcaaa aaacaacctc ttgcaataaa  
 780  
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 861

<210> 21  
 <211> 761  
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 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
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cccacaaatg agcttgagtt aaattcttg gcaagcagag gggggacaga acctgagagg  
 120  
 ctattgtagg aaacattgaa gggattttaga ctgcgcgtac tgtcaaagga gactggaatt  
 180  
 tctccactga aattattcag tgacaaatca agctgcctaa gcgaggaaat gtttgcaatg  
 240  
 cttgaaggaa tatgtccact aaattggttt ctactcaaaa tcagaacaga aagattacgc  
 300  
 aatctaccta aactttgagg gatttgattt tcaaggaggt tgttctctgc attcagcagt  
 360  
 gtaagtgagg ataaattttaga gagggtagca ggcaagttcc cattcaaggc attattagaa  
 420  
 atgtcaagtg tcttaagcct anaaagggtt cctatttcat ttggtagatgc tccctaaact  
 480  
 tattatgact aagggaaatc tnattgagct ctnttaactc ccaaagaaca ggacgtncca  
 540  
 gtgaaaaagt atnatctagg atcaaatttgc aacctaaaaa gcattttgga tccccccaaa  
 600

gtaggaagga gcanaagatg tnttnaaaa anaaatanaa aatatagttag tactgtaagc  
 660  
 naaaaggta ctaatagcat aantatgata caaatttagga tttcttanaa ttttttnaa  
 720  
 aatnnnangn aaccaaaaaa gngacntncn tttnaanacc c  
 761

<210> 22  
 <211> 856  
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 <213> soybean  
 <220>  
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aagtgtgctc agggacaggt tattgtgatc cagttcctt ggaagggtt gaggggtcga  
 120  
 atcaccgaca aaattggcca acttcaaggc ctcaggaagc ttagtcttca tgataaccaa  
 180  
 attggtggtt caatcccttc aactttggga cttcttccca accttagagg ggttcagtt  
 240  
 ttcaacaata ggcttacagg ttccatacct ctttctttag gtttctgcct ttgcttcaag  
 300  
 tctcttgcacc tcagcaacaa cttgctcaca ggagcaatcc cttatagtct tgctaattcc  
 360  
 actaagctt attggcttaa cttgagtttc aactccttct ctggccttt accagctagc  
 420  
 ctaactcact cattttctct cactttctt tctcttcaaa anaacaatct ttctggctcc  
 480  
 cttcctaact cttgggggtgg gaattccaag aatggcttct ttaggcttca aaaattgatc  
 540  
 ctagaacata actttttac tggtgacgtt cctgctttt ttggtaggct taaaganaag  
 600  
 ccaatgagaa ttcccttagt catnataaag ttaagggag ctttnccaa atgaaaaaaag  
 660  
 gaacccttn taggctaaa nanacttgac aattntaat aatgcccttg aatngggAAC  
 720  
 ttgcctgcta ccccccttaa tttatcctac ttaccctgnt ngaaggcaaa naacaacccc  
 780

tttgcaataa aaaccncaa gttaaggga angnggnact ttntntctnn tttnnnnn  
840

accantann ggcnct  
856

<210> 23  
<211> 826  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
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cccacaaatg agcttgagtt aaatttcttg gcaagcagag gggggacaga acctgagagg  
120

ctattttagg aaacattgaa gggatttaga ctgcgcgtac tgtcaaagga gactgaaatt  
180

tctccactga aattatttcag tgacaaatca agctgcctaa gcgaggaaat gtttgcaatg  
240

cttgaaggaa tatgtccact aaattggttt ctactcaaaa tcagaacaga aagattacgc  
300

aatctaccta aactttgagg gatttgattt tcaaggaggt tgttctctgc attcagcagt  
360

gtaagtgagg ataaattaga gaggtagca ggcaagttcc cattcaaggc attattagaa  
420

atgtcaagtg tcttaagcct agaaagggtt cctatttcat ttggatagc ttcactaaac  
480

ttattatgac taanggaaat ctcattgagc tctcttaagc tacccaaaga agcaggaacc  
540

gtcaccagtg aaaaaagtta tgatctagga tcaaattttg aacctaaaaa accattttg  
600

gaattccacc ccaagaatta ggaaggagc canaaagatt gttatggaa aaaaaaaaaa  
660

aaagtgagaa aaaatgagtg agttaggctt actggtaaaa ggaccaaaaa aaggantttg  
720

aaactnaaan ttaanccaat aaaacttaat gnaataaca aanactttta nggaattctc  
780

ttttnaacaa attnttnctt angncaaaaa anttaancaa aggnc  
826

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<210> 24
<211> 571
<212> DNA
<213> soybean
<220>
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gaacttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt
120

ttagcaactc gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat
180

ttgtccactc ctcttgaca actgaggcaa cccactgagg caaatctagt ccattcatag
240

acaccccagg tgatttcctc gtttaggagtt ctaacaagat aacaccaaga ctgtagatat
300

cagttttagt gtttgcttgc ttgagctttg agagctcagg tgcccggtat cccaatgctt
360

cagctgttagc tatcacgttg gaatttagcag cagttgacat caaccgagaa agacccaaat
420

ctgcaatttt agcatttgna ttctcattaa acaacacaat gntggatgng anggtncat
480

ggatgaaggt cttctnggna agnaagnaaa acaaagcacc gggccaaggn ttgggctaat
540

ttcaaccttg gggggcaaac naanaaatgt t
571

<210> 25
<211> 727
<212> DNA
<213> soybean
<220>
<221> misc_feature
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60

ctcgagggag gaaaaacaaa gaaattcatg ataaatagat ataacttatt aaatttaagg
120

ggtgtatttg cacaccctga attatagaga ttcttatatc tttgagaaaa taattaaatt
180

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gggaaaaaaag agataatgac tgattgagat ttgcctcaga attgttcgtt ttaatattgg  
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tacgaatcta atggtttat cctgaaagat gtcacaagt attgagggac taataaattg  
 300

tttataaaact actactaaat gagatgagac tttaagggtgt actgaagcaa tatcattaa  
 360

aaaatgacta ctcgtatgg tggagaaa atttatttc aatgaaaaga aaatatac  
 420

atataagata aagtaattaa cataaccgaa agggaaataaa atgcaacatt ataaaaacta  
 480

caactatata aatgatatac acaactccta gcacatgcat tggattgtga attaattaa  
 540

atgttgtatg gatggtaaaa attcaaaact aaacccccc caatttaagt gacacagaat  
 600

ataattagcg gtggctttt tacagaaacg acgagaacaa aggtgtcaaa ggaaaggaga  
 660

tggatgcattg tggatgagc tcatncaatt ccaacctgtt gtggaccaaa gccgaagtcc  
 720

ttgacnn  
 727

<210> 26  
 <211> 560  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 26  
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 60

tctagaggat ccccggtac cgagctcgaa ttcccaatgc cagagcttcc ctatcggtgg  
 120

cccccacat gaagaatacaca cccacgttga aatacatgtt gttgttgttg gacgcgcacca  
 180

gcccggagtg ccgggtccacg agtacccca acgtgcattgg cgcatgcgt tgaaacctag  
 240

tattcatctt cctgatggag gcagccacgt gtccgacaag gtcaatgttgcgttccgt  
 300

gaaaaggat gataatgaaa ggcaccatata tgtcttgggc gaggttgaaa atggcggtcgt  
 360

gcatgctctt gtaaggtgcc acgttgatgt agggaaagaac cttgactggc ccacttgagt  
420

tgtggagta gtttcgaag gcttgcata tgggttggt gttgggtaa ttcacagaca  
480

agaattttct gngaccgcgtg tctatgtttt atggaaagga gaatgggtgc cttttccccca  
540

cnagctngat naggnggact  
560

<210> 27  
<211> 630  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 27  
actgcatgca tgcaagcaaa tttaacttta cacaacacac caccagagtg taagctgttt  
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cataaaaaat gattgttcg ggcttcgga tcacaaggct tgtttagtat tcggtaagaa  
120

agaaagaaat aggtgataaa taaagtggat agaaacataa aagaaaggaa taaagtaatg  
180

aaaataaggg agaagtagaa taatggaaat agataagaaa tagaatggat tcgatagttat  
240

atctagttta agagaaataa gaaaaataa gaacaagaaa aaaaattgca tttaattta  
300

ttatgttac tgtatcgatg attggcacga gattataagt ttttttttc gtgtttaccg  
360

ttgaaggatt atatatcata ccattgttt gtcaaccaac acgaaacttt aagtctcttg  
420

atgttcaaaa gcacttaaaa ctaaggaaatt ttacatcata ttagtcgtct gtagactgtat  
480

acaggatttt aagcctatat atctagcatt gatccggttg gcaatcaata tcacatataat  
540

gatcggtaaa ccattcatat aaccctttg attggtcaag aaatggctt atgaatccca  
600

ggattgagcc cagaancagg ngatactagn  
630

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<210> 28
<211> 756
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 28
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60

cattttctct cactttctt tctcttcaaa ataacaatct ttntggctcc cttnctaact
120

gtgggggggg gaatancaag ggnggctta ggctgcaaaa tttgatccta gatcataact
180

ttttcactgg tgacgttccct gcttcttgg gtagcttaag agagctcaat gagatttccc
240

ttagtctataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctta
300

agacacttga catttctaat aatgccttga atgggaactt gcctgctacc ctctctaatt
360

tatcctcact tacactgctg aatgcagaga acaacccct tgacaatcaa atccctcaaa
420

gttttaggttag attgcgtact ctttcctgtt ccgattttga gtagaaacca atttagtgaa
480

catattcctt caagcatngc nnacatttcc tcgcttaggc agttgatttgc tcactgaata
540

atttcaggtg gagaaattnc agtctncttt gacagtcagc gcagtctaaa tcttcttcaa
600

tggtnctac aataggcctc tcagggtctg gcccccttt gnttggccaa ggaaanttaa
660

cttaagctta tttggngggg aaanattcaa ctatggggg acncggccct ttaaaccctt
720

gggnntttcc caggttcctt ccaaggngc anttgt
756

<210> 29
<211> 566
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 29

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 tgcaggcatg caagcttatt attactacta ctacttatct tcactccacc acactgtgtc  
 120  
 actaaaaccg gaaccatccc catacaaaat tctactgaag acaacatatac ccccaatatt  
 180  
 cccaatgcac cagcgttctc catgaaagtt gtcatttctt ttccattcaa agatccatca  
 240  
 ttgtggcgcc ttcccaccat cacaagatca tagttcctt ccaaactatg cactgcttcc  
 300  
 aacacctcca ccccatcgac caccgttaatc tcgtaccaac aaacgttacc aatgccatata  
 360  
 ttcatgctct tgaactcgac aattaacccc tcgtccaaca tggtatcttc ctcttcctct  
 420  
 tcacgctctt ctcttgcaaa ataattttac aaccacacgg tttcttggtc acgataacaa  
 480  
 acctaaacaa gctaccctcg tatctgcacg ctccgcattc gaattcccaa tgccagagct  
 540  
 tccctatcg gggncacc tatgaa  
 566

<210> 30  
 <211> 673  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 30  
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aacttcttgt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
 120

tagcaactcg tcgccaactg tggatgcac tctcatcaag tctgcataa aaacctcatt  
 180

tgtccactcc tcttgacaa ctgaggcaac ccactgaggc aaatcttagtc cattcataga  
 240

cacccccaggat gatttcctcg ttaggagttc taacaagata acaccaagac tgttagatatac  
 300

agtttttagtg tttgctttct tgagcttttg agaagctcag gtgcccggta tcccaaatgc  
 360

ttccagctgt agcttatacac cggtggaaat taagcagcaa gttggacatt caaccggag  
420

aaaaagaccc aaaaattttg caaatttttta agcaatttng gnanttcttn aatcaaggcc  
480

aaccaccaat tggnttggga atgggtggaaag ggtttccccca atggtaatttgaagggtttc  
540

ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaagggt  
600

nttttggggg ctttattttt tncnaatncc ctttgggnngg ggncccaaatt tcnaaantgg  
660

aaattggntt tnn  
673

<210> 31

<211> 736

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 31

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60

gtattctatt ttttcataaaa ttctaatctt gctaataatt tcaattcata ttaagatcg  
120

taaatagaaa atctagaaaa aaaaacaaaa aaagtatttt ttttcattt attttatattt  
180

caattgattt gtcactaaca aactgattcc tcttaatct cacaaaagta catgtcgata  
240

taaatatgag attataaatt catgatatct attttcgatt tttacatata atgtttttt  
300

tatctttttt agttcctaatt aagcattttt aatgtctta tgttcctact ttgcataatca  
360

gggaccattt aatgggacga ggtcaactgcg agcatgaaca acgtgtcttt cgtctccgaa  
420

acaacgtgcc atcttgcagg ctcaccaccc tggaaatccct ggagtggtca ccactgattt  
480

tccggggaaa gcccggccgt gaaagttga ttacaccggc aatgtgagcc ggtcgctgtg  
540

gcaaccctgg tnccgggaca aangcacacc aagttgnaan tttgggtccg aggggngcca  
600

naattgggtt tgcanggata ctaagcnntt ggnacttnc ctggnaacc caccctaat  
660

nccatnttc aatgggnac cnaatttctt acaattggnt gcaananggg nttnnggg  
720

aaccttnna ccccca  
736

<210> 32  
<211> 566  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
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<400> 32  
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60

gcactccaag aaacagagag tttcacattt tttgttgtt acataatgaa gcaaacgtgc  
120

gtggcatcac tgccttatta gaagagtgc acccagtgc agagagcccc atatgcgtct  
180

acgcagtcca ctttatcgag ctctgggaa aaagtgcacc catttcctt cccataaaac  
240

atagacacgg tcgcagaaaa ttcttgcgt tgaattaccc caacaccaac cacatcatgc  
300

aagccttcga aaactactcc aacaactcaa gtggccagt caaggttctt ccctacatca  
360

acgtggcacc ttacaagagc atgcacgacg ccattttcaa cctcgcccaa gacaatatgg  
420

tgccttcat tatcatccct tttcacgaaa acggcaacat tgaccttgc ggacacgtgg  
480

ctgcctccat caggaagatg aatacttagt ttcaagcgca tgcgccatgc cgttgggat  
540

actcgngcc ggnactctng gtgggn  
566

<210> 33  
<211> 614  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 33

acaacaagca acgaacagct tttaacctt aactaggcaa atgccaatat taaacaacaa  
60

ataattaaaa ttgtaaggct ggtcgagttt aaattaaaca aaaggccctc tattcaaacc  
120

ttcatatatc atacctgntt ttaatttacg cggactactt tttcatataa aaaaaagatc  
180

attagaggat taatttaaag cgnnttagtt tttaatttacc aaagagtata attattatta  
240

ggcgcttgg cccacaatca atcacctaaa caagaaaaag aaaaagaaaa aaaaaggcaa  
300

atggactaa tgcaaaagtgcacaaatctt tgncttgaac tctttaatta gcaacaaatn  
360

atactcttct gcacaaatca caagaatacc ttacatgaaa agaatggnaa tntgacgggt  
420

tacattaaat tataatgcagg tttctgcagg gaatcaatn tcaagaattt aaaaaaaaaa  
480

gggaattttc aatagcttagc ttgacttagca aaggaaaga ataaaggnaa aangcttctt  
540

ggctnggcct tttggganng gnatcctttt ngctaaaccg gaaanggnta tangaatgg  
600

aaaggagana atcg  
614

<210> 34

<211> 602

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 34

aggctagctg gttaaggacc agagaaggat ttgaaactca agttaagccca ataaagctta  
60

gtgaaattttt caagactata agggatttgc cctgtgagca agttgttgc gaggtcaaga  
120

gactgaagca aaggcagaa acctaaagaa agaggtatgg aacctgttaag cctatttttg  
180

aataactgaa cccctctaag gttggaaaga agtccaaag ttgaaggat tgaaccacca  
240

atgggttat catgaagact aagcttcctg aggccttgaa gttggccat tttggcggtg  
300

attcgacccc tcaaaccctt ccaaggaagc tggatcaca a taacctgtcc ctgagcacac  
360

ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgaa  
420

gaacccttct ggatcagcca actcttgctt gaaagcttat cacatgtacc tctctacaga  
480

taggagggtg cttcttcct ttcactggnc tacctcttcg ggaataagcc acctaattgag  
540

aaagaaaagan ctgggatagc taactctaca tagnctcaag gcnagagata attagggaaa  
600

ng  
602

<210> 35

<211> 644

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 35

ggaattttga agagaagtaa agtgagagaa aatgantgan nnaggctagc tggtaaagga  
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ccagagaagg atttgcactt caagttaagc caataaagct tagtggattt agcaagacta  
120

taagggattt ctctgttagt caagtttttg ctgaggtcaa gagactgaag caaagggcag  
180

aaacctaagaa aaagaggtat ggaacctgta agcctattgt tgaataactg aaccctctaa  
240

agttggaa gaagtccaa agttgaaggg attgaaccac caatttggtt atcatgaaga  
300

ctaagcttcc tgaggcctt aagttggcca attttggcg tgattcgacc cctcaaacc  
360

ttccaaggaa gctggatcac aataacctgt ccctgagcac acttgattcc aacccaaacct  
420

ccggaacaag ctccatagcc actggcattc cagctccgc aagaaccctt ctggatcagc  
480

caactcttgc ttgaaagctt atcacatgta cctctctaca gataggaggg tgcttcttcc  
540

ctttcactgg nctacctttt cggttataag ccacctaattt agaaagaaag anctggata  
600

gctaactcta catagnctca aggcnagaga taattagggaa aang  
644

<210> 36  
<211> 748  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 36  
attggcttaa cttgagtttc aactccttct ctggccttt accagctagc ctaactcact  
60

cattttctct cactttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact  
120

cttggggtgg gaattccaag aatggcttct tttaggcttca aaatttgcac ctagatcata  
180

actttttcac tggtgacggtt cctgcttctt tggtagctt aagagagtc aatgagattt  
240

cccttagtca taataagttt aatggagctg taccaaataa aataggaacc ctttcttaggc  
300

ttaagacact tgacatttct aataatgcct tgaatggaa cttgcctgct accctctcta  
360

atttacccctc acttacactg ctgaatgcag agaacaacct cttgacaat caaatccctc  
420

aaagtttagg tagattgcgt aatcttctg ttctgatttt ggtagaaac caatttatgt  
480

gacatattcc ttcaaggcatt gcaaaccattt cctcgcttag gcagcttgat ttgcactgaa  
540

taatttcagt ggagaaattc cagtctcctt tgacagtcaa gcgcaagtct aaatctcttc  
600

aatgttcct acaatagcct ctcanggtct gncccccctc tgcttgccaa gaaatttaac  
660

tcaagctcat ttgtggaaa tattcaacta tgtggacag nccttcaacc ccatgttttn  
720

ccaagcttca tacaaggagc atggccct  
748

<210> 37  
<211> 563  
<212> DNA  
<213> soybean  
<220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 37
ctggctgtga ctgatctctc tggctctaattc tcttccagct gctggagaac ttgatgaact
60

tctggtcgtg ctgatggaga aggatcaaca cagtgcaaag cgagcttcaa cgtgttttagc
120

aactcgtcgc caactgtgga tgcattcttc atcaagtctg catcaaaaaac ctcatttgc
180

cactcctctt tgacaaactga ggcaacccac tgaggcaaattt ctagtccatt catagacacc
240

ccaggtgatt tcctcgtag gagttctaac aagataacac caagactgta gatatcagtt
300

ttagtgtttg ctttctttag ctttgagagc tcaggtgccc ggtatccaa tgctccagct
360

gtagctatca cggttggatt agcagcagtt gacatcaacc cgagaaagac caaaatctgc
420

aatttttagca tttgttattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat
480

gatgttctcc tggaaatgaa ggcagaacaa gccacggcca agcttggcta tttcatcctt
540

gtggccaatc aatgaatggc cat
563

<210> 38
<211> 623
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 38
gattttgcac atctacttga gtaggcttca catgattccg tgtattactt ttattttgtt
60

atataatacca tgtggagttt agtatactt tttgttctac aaccacattt tatgagactt
120

gcattttatg tgacatgaac ataaaaaaata atgaaaaaaga aaatgtcaca tatatatgtat
180

acaatcttt taaaagtcaa tttgaataat ttttcatcag gagaaaaaag aagagagaaaa
240

atgaattaag tttttctaa aaattttataa caacttataa aaagaaaaaaa ctttaatgaa
300

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aaaaattcaa aaagaaaaag aataaaatga tcaatagcct ttaggtttaa gcacaaggtg  
360

aatccaaata aagacccaa aagatagtc agaaccac aatggtaaaa tctagaaata  
420

tacatgtaaa gactgcattt atagaccatc atgactagca aatgcttaaa ggcacataga  
480

tgaattaatc tatgcaacaa aatctgnccc aagtttttt tangcaagga aaatcatatc  
540

attttattaa ggataactga gaggaccaat ggtgtaatca attgaaatca tgcgaggctt  
600

acatgaaatc tgcaccaag tac  
623

<210> 39

<211> 785

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 39

caatttagaa ataaatataat tgaaaagaat tggtagtcag ttcaatgaaa gtgaggtcct  
60

caaacaacctt gatgcagcan ctgtatgata caaaatataat taataactac accagcagaa  
120

aaatataggc caatctataat ttggaaacca aataatattt aatttgtatc tgatagactc  
180

aagaaattat aactaatttgc aagaaatgg ataccttagta ttataaaac accaaaacac  
240

agggcagatt atagtagcta aagaggaaga agctaactag tcaaagtgtc acactattca  
300

acactacaaa ggaccaatcc ctttttagag agcctgaccc ttctcacccca agagctaccc  
360

aagagaatac acaccctctc ctccatatcc cctccatata aacacaatcc tcaccaacta  
420

agcacctacc tgacaattcc ctcctaacca actctctgct catcagggtt gattctcttc  
480

tcttccaag actttggct tttgtttga ctaagccaaa tttctatctg ctggcctgg  
540

ccaacagtat cttttacaga caagtttaca aaatattcgt atttgttaga atttattgat  
600

atccctatta tggcccccac tgtgtgcaaa catttagaaa ctaatattac aattaacagt  
660

ttttggtaaa tgcagcaaaa ctaaatatat ttgatataga aatcaacaaa ctgaaaaatt  
720

atatngcaag gncaattgga aaagaaaatt gataccctt ttgnggnaat aaatatantg  
780

nntac  
785

<210> 40  
<211> 640  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 40  
tggaaggcgt cttcaattc aatcacaaag tctaaatcaa agacgagggg gctgaaatca  
60

tgggggacat tgacaacgta aggttaaccac taattaatta accactaata ttatcccatt  
120

aatatcccat taagagataa tacatataga gccaataaat aagcatctt acaagacaaa  
180

taaattatcc attattcagc ttatgccat ggtggattta gaagtttagg aaaaaaaaaat  
240

tcatcatttg gcaattttgg gtcattagc ttgaattggg tacaaggtgt ggtatggact  
300

tttttctttt cttttctcta aattttcct tctatgatat actttggc aacttaaact  
360

caatttctta tagctcaata tttggattt agattggaaa tatctaaaag ncacttaaat  
420

tttatattta caaaaaaaaaaaa aaaagcatcg ntcttttct ttttataaca aagggggatc  
480

aaaatcactc ttttatgaa tccgcattat ccttnataat aattaacctc cactgggatt  
540

taaaggngta ttaattaaat ccggaggcca tggaaggata tgggggaaacc taatctaaaa  
600

ntncatcctc aaccctaang ggaaaataaa ggaatngggg  
640

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<210> 41
<211> 808
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 41
cttttgacac tatgaatacg aattcaaata ttaaatatTT ttatTTTtgc tctttgtatt
60

ctatTTTTc ataaattcta atnTTgctaa taatttcaat tcataTTtaag atcggtaaat
120

agaaaatcta gaaaaaaaaaa caaaaaaaagt atTTTTTTT cattgatttt atTTTcaatt
180

gatttgcac taacaaactg attcctctta aatctcacaa aagtacatgt cgatataaaat
240

atgagattat aaattcatga tatctatTTT cgatTTTAC atataatgtt tttttatct
300

tttttagttc ctaataagca tttttaatg tcttatgttc ctactttgca tatcaggAAC
360

ccattaatgg gacgagggttc actgcgagca tgaacaacgt gtcttcgtt ctcccgaaca
420

acgtgtccat ctgcaggct caccacctcg gaatccctgg agtggTCacc actgattttc
480

cggggaagcc gccggtgaag tttgattaca ccggcaatgt gagccgttc ctgtggcaac
540

ctgttccgg gacaaaggca cacaaggta agtttgggtc cgagggtgca gattgtgttgc
600

caggatacta gcattgtcac tcctgagaac caccctatcc atcttcatgg gtcgatttct
660

acattgtgc agagggtttc gggAACTTCG acccaaagaa agatccgcga aattcaacct
720

tggTggatcc ccttgaaaaa acacagtggc tggcctgtaa atggatgggc aagtattcga
780

tttggggct gataaccnA gtaaatnt
808

<210> 42
<211> 605
<212> DNA
<213> soybean
<220>
<221> misc_feature

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<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 42
ctcccggtc ccaagtaata ggcccctcag agccaaaaca ttgggggggc taattttcc
60

tagaacactg acttctgatt caaattctct atgaccttta gtgatctttt ccctcaatct
120

ctttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct
180

ctttccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc
240

atcaaaatgg actagttcc ctccagcctc cccacctgct tcaacatcac caccagcaac
300

tggagggact ccttttctg cctcatagtg gccgctctac cctcggtggc ttggccgntc
360

ccggccttag atgntgatct ctttctgatc aggcaaaaaa gcaggacaca acaaagnata
420

atcaggacta cgaggagaac tcctgctact atgagaatta tgnctttggg gcttagcttc
480

ctatgatggg gatggttnga cactcanga gggggggcaa tgactccctg gganggagct
540

tggaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc cacaangag
600

cnngn
605

<210> 43
<211> 275
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 43
ctgaacggaa gtgactgcgt ttgtgtcggt tgtaagcagg gagtggaggc attataggtc
60

tcggtttgc tcttactcc tttggcacga tggtgagaat gcttattgtg gtgattcggt
120

gatttgtatt cgagtatggc ggtttagtg gtgtgtcga aggcaagcggt ttggcggt
180

tggtacgcac gcgcgcacat gtagtagcgg gaaggtggct ggtcnccgggt gattaagacg
240

```

tcggcggtt gcccggggcc cactatgagg acttt  
275

<210> 44  
<211> 632  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 44  
tgtatataat taaaatgagt ttaatattta tgtattaata gtataaaatt tatcatacat  
60

gatgaatggg gaaattttga attatgatta aataattata taaaaaaatt tacatgatga  
120

atgaataact tttttttct caattaaat tatgatcctt tgtcgatatg ttttactgtg  
180

tcgacccccc ttttcggggg agaggggacc agtaggagaa gtagtattta gtaaaagaag  
240

ggagagagaa gttgacttat ccttaatta gtttagagaa aattagacga gaaggaaaaaa  
300

aaataggcga aagtcactt ttctttctat ctctaccaag aatgttgatg aaaaagtggg  
360

gagcagaatt ttaaattttt atttcataat ttatccttct ccacattttt ggtttcttcc  
420

attttttat aaaatgattt attttagggc ataggtaact tttcaattttt tttcattcta  
480

ttcgatcaaa taaatagaaa aataattac tttctttct tttcacccctt ttcataatttc  
540

tctcataacg accacttatt aattacctct ttnccccac ttttgctat ncaaatttat  
600

ctttgaattt cttccttttc attttggtct cn  
632

<210> 45  
<211> 650  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 45  
ttcacagaca tagcaaaattt ctgaagtaag aagcaagttc acgtgtgatg gcgaaaccca  
60

ttatagaata tggtagactg aaaggttaaca aattaaaata tgttttattg cagaaaccat  
 120  
 aaactaataa acctttggg tagatagaaa agtgataaat catacataat aataactgaa  
 180  
 atactcagct ttatcaat ttaattcaat atatatctat ttttgaattt ttcaaagaga  
 240  
 tgcttagcta gggagggaaac ctaatttagt ataaaaaaaaaa gaaacaaatt aaaaacataa  
 300  
 attgccattg aatgcctttt aaaatattcc gatccattga tgtctacata ataatatata  
 360  
 ttattgat aataaccat tgaataaaat ggatatacct attacgtaat agcagattg  
 420  
 tctacgcaaa agagacagtc aaaggtgcta attagaaatt aatcgccccca taataaaaatt  
 480  
 ctaaaccttt gaaaagataa atcaattctc aaaaagattt attttactta tctcagtacc  
 540  
 atgcaccatg gatcatctt ctggctggc tangaatttt caaagctacg ccacaaattg  
 600  
 aaattggct aaaaatcaaa catgcattggt gtcacaacta tattactgt  
 650

<210> 46  
 <211> 628  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 46  
 gaatgcacat ttataaaacg tggtagatcct ctcccggnng ggggaccaat taataaggta  
 60

ccctgttgc cctagggac attggatggc catcagatgg tgcataataca cacaaagtt  
 120  
 tatacagcat tatagtgact ttcaacctcc tcactccgag gtcccatat attctctta  
 180  
 ttgaacttgt aaagactaat gaacttatga agactatcac taaaacccac tatggaaagcc  
 240  
 ccagtagtaa aatggncatg catgctcacc aaaagtttat acaggattat agcgacatac  
 300  
 gacctcactc ccaggnccac atgctctatn gaacttctaa agctatctn gaaccctatt  
 360

atagttcat gagggtaaca tgcatttag cgacttagaa aactacatat cattgagcgt  
 420

gatcnttaag aaggcctcat tttgacacaa aagaacatga tggatttgcc tttatattcg  
 480

gttactaacc ttgatagcta tttggncag agagaaaaat attgacatgc ccngngaaatc  
 540

aaaaggtaga taatnattaa agagataaag aactatcccc ttgctagggg naaaaaaaaaa  
 600

ntatatccct atttaaataa aancatc  
 628

<210> 47  
 <211> 736  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 47  
 tgggttatataat aataaaaatg agtttatataat ttatgttataat atatataatcata  
 60

catgatgaat ggtgaaattt tgaattatga ttaataatt atataaaaaa atttacatga  
 120

tgaatgaata actttttttt tctcaattaa aattatgatc ctttgcgt atgtttact  
 180

gtgtcgacct ttttttcgg gggagagggg accagtagga gaagtagtataat ttagtaaaag  
 240

aaggagaga gaagttgact ttcctttaa ttatgttataat gaaaatttataat cgagaaggaa  
 300

aaaaaatagg cgaaagtcac ttttcttc tatctctacc aagaatgtt ataaaaaagt  
 360

ggggagcaga atttaaatt tttatttca tatttacct tctccacatt tttgtttct  
 420

tccatttttt tataaaatga tttattttag ggcatagtta actttcaat ttttttatt  
 480

tctattcgat caaataaataa gaaaaataat ttactttct ttcttttaac cttttcatat  
 540

ttctctcata acgaacaact tattaattta cctctttcc cccactttg tctatccaa  
 600

ttctatctt gaattttctt cttttcatt ttggttctca acccaaataa agaagaacga  
 660

gtttggataa atcataaagg ttatatacc tataantgga agaacattta aatggtccaa  
720

ngggccttaa aattct  
736

<210> 48  
<211> 695  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 48  
atgccagagc tttccttatac gtggcccccac ctatgaagaa tacacccacg ttgaaataca  
60

tgttgttgtt gttggacgacgcccga gagtgccggc ccacgagttat ccccaacgtg  
120

catggcgcat gcgcgttggaaa cctagttattc atcttccttgc tggaggcagc cacgtgtccg  
180

acaaggtaa tggccgtt ttcgtgaaaa gggatgataa tgaaaggcac catattgtct  
240

tgggcgaggt tgaaaatggc gtcgtgcattt ctcttgcataag gtgcacgtt gatgttaggaa  
300

agaaccttgc ctggccact tgggtttt gatgtttt cggatgttgc catgtatgtgg  
360

ttgggtgtgg gtaattcac agacaagaat ttctgcac cgtgtctatg ttttatggaa  
420

aggagaatgg gtgcactttt cccacgagct cgataaagggt ggactgcgtt naccatatgg  
480

gctctnttgc actgggttgc actcttctaa taanggcagn gatgccncnc nccgtttgt  
540

tnattatgtt cacaacaaac aatngaaac tctctgntt tggagngc tttggatcgn  
600

tctcanntnc ccttnnaata ancttntnn gngnacttngc agggcgangc ttnnnncnata  
660

tgntaaccaa gggngntacn annnnnngnt ntaan  
695

<210> 49  
<211> 625  
<212> DNA  
<213> soybean  
<220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 49
tttcccacaa tcttaatct tgctaataat ttcaattcat attaagatcg gaaaatagaa
60

aatctataaa aaaaaacaaa aaaagtattt tttttcatt gattttattt tcaattgatt
120

tgtcactaac aaactgattc ctcttaatc tcacaaaagt acatgtcgat ataaatatga
180

gattataaat tcatgatatc tatttcgat ttttacatat aatgttttt ttatctttt
240

tagttcctaa taagcatttt taaatggctt atgttcctac tttgcatatc agggacccat
300

taatggacg aggttcactg cgagcatgaa caacgtggct ttcgttctcc cgaacaacgt
360

gtccatcttg caggctcacc acctcggaat ccctggagtg ntcaccactg atttccggg
420

gaagccgccc gtgaagtng attacacccg gcaatgtgag ccgntcgctg gggcaacctg
480

ntcccgccac aaaggcacac aagttgaagt ttgggtcgag ggngcagatt ggggntgcan
540

gatactagca ttgcactcct gagaaccacc ctatccatct tcatgggac caattctaca
600

ttggtgcaga ngttccggg aacnc
625

<210> 50
<211> 621
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 50
actggtgtac gatttagtgt tactagctat cccatgtaat aaatatataa atcttgaatc
60

acaaggaatg atgcaatata tggttcctct aatagtaagt tatcccacca aatctgaata
120

taattaagaa gttgtattcg tctgaatgtt gtgtctaaaa gggttgattg atgaatgatg
180

gctacatgtg agagtttgat aacaacagct agctagccat tagccaagcc actaactaga
240

```

cattagttt ggttggttgt cagacaaacc gttagacctg agaacgaaag cgtattaaac  
 300  
 aaaagatgat atgttagactt ttaatataaa aagagatgga gaaaccaaat tgagattga  
 360  
 taggtgaact ataaatcatg acagtgcatt agacaagttg gtagagttg ttactaactc  
 420  
 atcagattct taagaaaggc aaaaatagaa actacaccac atgtcgctag cgataacgtg  
 480  
 caatttataa ataaataatg gtttcatttt catggttagt tataaattaa tgggtcacaa  
 540  
 ttcttaattt attaggaacg tatacttcat tttgagagtg tataaagttg gaagaagaaa  
 600  
 agggatatag aaagaataaa a  
 621

<210> 51  
 <211> 480  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 51  
 aagctccgcn cggggAACCT nnagagtcta cctgaatccc caagntngaa cgaatacttg  
 60  
 ccaacacaaa tacgggcgat gggaaacatc tgaagaccgc tccaaagcgc cncataactaa  
 120  
 attgnnagga aaatttataat ctgaccctttc atgggtgggg ggtgcacatcg ctataaggaa  
 180  
 gggttcattc tgggcaagat ctgtggaaaa caatattggg gatcaaattt tagggagtga  
 240  
 tgctacaacc tcttcattat acatggattc taaaataagt ggtgtgaact taaaagtgaa  
 300  
 cgaagacggc atgcaaatgc ctggattca tcttagttgtat ttatttgaga ctgacaccaa  
 360  
 tacaagcggc gataaacatg attccacta tgatgaagng ccatcatctt atgggtttga  
 420  
 gggcttacga cgatccaaac gtaggaacat acaacctgaa ccgntactct gattggggaa  
 480  
  
 <210> 52  
 <211> 480

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 52
aagctccgcn cggggAACCT nnagagtcta cctgaatccc caagntngaa cgaatacttg
60

ccaacacaaa tacgggcgat gggaaacatc tgaagaccgc tccaaagcgc cncataactaa
120

attgnnagga aaatttataat ctgaccTTTC atgggtgggg ggtgcatctg ctataaggaa
180

gggttcattc tgggcaagat ctgtggaaaa caatattggg gatcaaattt tagggagtga
240

tgctacaacc tcttcattat acatggattc tgaataaagt ggtgtgaact ttaaagtgaa
300

cgaagacggc atgcaaATgc ctggTATTca tctagttgat ttatttgaga ctgacaccaa
360

tacaagcggc gataaacatg attcccacta tcatgaagng ccatcatctt atgggtttga
420

gggcttacga cgatccaaac gtaggaacat acaacctgaa ccgntactct gattggggga
480

<210> 53
<211> 736
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 53
aatttattta gttgatataa ccactttcaa aaatctgact tacaagactc tttagaattc
60

ataatagtga cacttgatta agtttagatta gactttataa aacacgagtt tgatttttt
120

tttaataata attaaggTTc tagCTTATat atattataata gttgatatag actactttca
180

aaagtctgac ttAAAAGTCT CTTAGTATA cataataata taacctttta atttagttaa
240

aaaatttgTC cctaaataaa ttaataaaATC caaacttata tacaagttaa taggcttaag
300

tcttaaaaaaa ataatatata tatatatata taaagcatta aaacatttca atgaaaacaa
360

```

tataataata ataataataa atatattatt gttattaatt catagattt attattacta  
420

ttatagaata atttgtgtgt atatatataa atatatacag agagagaggg tcattttata  
480

tgagtgagaa aatttaataa ttattatgaa ttttcaaaat taaaatcaca tgccatatga  
540

ttttcttaaa aaattacgta actttttttt ttacaaaagt aatcatatgg ttttaaaaac  
600

taatttaaat aacttatata taactatatac agntaaaatt ngggtcataa aataagtata  
660

tcagntattt tacaaaaattt ataagtnttc ataaataaat accaaatgat agtcccaggn  
720

gatgggnncag cttnng  
736

<210> 54  
<211> 642  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP).  
<400> 54  
ttaactttac acaacacacc accagagtgt aagctgttc ataaaaatg attgtttcgg  
60

gcttcggat cacaaggctt gtttagtatt cggttaagaaaa gaaagaataa ggtgataaat  
120

aaagtggata gaaacataaa agaaaggaat aaagtaatga aaataaggga gaagtagaaat  
180

aatggaaata gataagaaat agaatggatt cgatagtata tctagttaa gagaataag  
240

aaaaaataag aacaagaaaa aaaattgcat ttaatttat tatttgtact gtatcgatga  
300

ttggcacgag attataagtt tttttttcg tgttacgtt gaaggattat atatcataacc  
360

atttgttgtt caaccaacac ggaactttaa gtctcttgat gttcaaaagc actaaaact  
420

aaggaatttt acatcatatt agtcgctgta gactgataca ggattttaag cctatatatac  
480

tagcattgat cgggtgtcaa tcaatatcac attaatgatc ggtaaaccat tcatataacc  
540

cctttgattg gtcaagaaat ggcttatga atncccagga ttgagcccag aagacaggtg  
600

atactagggtt caattcatgg ttttaggata ggctcgtaaa cc  
642

<210> 55  
<211> 659  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 55

aaaaggacct aaaagcaaaa agaaaattga gtatccttag gaattaaaaa tattccaata  
60

aaaataaaaat aaagatccaa atgatagtgg gataaccgaa gaggaatgtc tttcaaccac  
120

tgcctgacccg ccaccactgc caacagccta gtatcaaccg aatccacata taccaacaat  
180

cttcagacaa acacttctaa gttggtgctg aagagacaat atctcatggg tagatcaaat  
240

taagagtgct accaataaca aaatcggtt catttgacta acaaacagtt atgtgcattg  
300

gatgttctac catagtacat tgcttatgt gaaattcttt taattattca atattgacat  
360

gntcttatat atatatatat atatatatat atatatatat atatacgagg gattgnatta  
420

tctctgaaaa aagattttat cataaaatca taatgatttc tcataatgna tctttacatt  
480

ttaaaggtag ataaataaaa ttgatttaaa tnggnagata taataaaaat acataattaa  
540

tatgacttt aaccaaattt atatataaac actaaaaaaa aagttcatga acgnccgggg  
600

ngnattggnt gggncaaaaa aaaattaata ctatcaacct aataaaaat tatttatan  
659

<210> 56  
<211> 805  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 56

ccaatgccag agttcccta tcgtggccc cacctatgaa gaatacaccc acgttcaa  
 60  
 acatgttgtt gttgttggac gcgcccagcc gagagtgccg gtccacgagt atccccaaac  
 120  
 tgcgtggcgc atgcgttga aacctagtat tcatttcct gatggaggca gccacgtgtc  
 180  
 cgacaaggc aatgttgccg tttcgtgaa aaggatgat aatgaaaggc accatattgt  
 240  
 cttggcgag gttaaaaatg gcgtcgta tgctttgtt aggtgccacg ttgtatgttag  
 300  
 gaagaacctt gactggccca cttgagttgt tggagtagtt ttcaaggct tgcattatgt  
 360  
 ggttgggttt gggtaattc acagacaaga atttctgcg accgtgtcta tgtttatgg  
 420  
 gaaggagaat ggggcactt ttccccacga gctcgataag gtggactgctg tagacgcata  
 480  
 tggggctctc ttgcactggg ttgcactctt ctaataaggc agtgcgttgc acgcacgtttg  
 540  
 ctttcattat gtacacaaca aaacaatgtg aaaactctct gtttcttgg ggtgcatttgg  
 600  
 atcggtctcn agtccccctt cgaataagct ttctgcgtgn tacttcnagg ggcnnatgct  
 660  
 ttgtaccaat atgnnttanc caagggngt tnccattncn ggtctttact accacnacat  
 720  
 aacacccnat tnnttgaann gnancnac caacntctac naaancgtta tcaatnacnt  
 780  
 tnnatngat ttgannact ggccn  
 805

<210> 57  
 <211> 632  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 57  
 tttagaattc ataatagtga cacttgatta agttagatata gactttataa aacacgagtt  
 60  
 tgatTTTT ttataataata attaaggttc tagtttatat atattatata gttgatata  
 120

actacttca aaagtctgac taaaagtct cttagtata cataataata taaccttta  
 180

attagttaa aaaatttgc cctaaataaa ttaataaatac caaacttata tacaagttaa  
 240

taggcttaag tctaaaaaaa ataataatata tatatatata taaagcatta aaacatttca  
 300

atgaaaacaa tataataata ataataataa atatattatt gttattaatt catagatttt  
 360

attattacta ttatagaata atttgtgtgt atatatataa atatataagag agagagaggg  
 420

tcattttata tgagtgagaa aatttaataa ttattatgaa ttttcaaaat taaaatcaca  
 480

tgccatatga ttttcttaaa aaattacgta actttttttt ttacaaaagt aatcatatgg  
 540

ttttaaaaac taatttaat aacttatata taactatatac agttaaattt ggtcataaaa  
 600

ataagtatat cagttatTTT aaaaaattat aa  
 632

<210> 58  
 <211> 437  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 58  
 ctttgacac tatngaatac gaattcgaat gtcggagcgt gcagatacga gggtagctt  
 60

gtttaggtt gttatcgtga acaagaaacc gtgtggttgt aaaatttatt tgacaagaga  
 120

agagcgtgaa gaggaaaggagg aagataccat gttggacgag gggtaattt acgagttcaa  
 180

gagcatgaaa tatggcattt gtaacgtttt ttggtagcag attacgggtt acgtgggggt  
 240

ggaggtgttg gaagcagtgc atagtttggaa aggaaactat gatcttgta tggtagggaaag  
 300

gcccacaat gatggatctt tgaatggaaa agaaatgaca actttcatgg agaacgctga  
 360

tgcattggaa atattgtggg atatgtccc ttcnccanc ntgnntggcn tngttccgct  
 420

tttttcgnct nttnngcc  
437

<210> 59  
 <211> 681  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 59  
 ggnttcttta gggcttcaaa atttgatcct agatcataac tttttcact ggtgacgttc  
 60  
 ctgcttcctt gggtagctta agagagctca atgagatttc ccttagtcat aataagttta  
 120  
 gtggagctat accaaatgaa ataggaaccc tttcttaggct taagacactt gacatttcta  
 180  
 ataatgcctt gaatgggaac ttgcctgcta ccctctctaa tttatcctca cttacactgc  
 240  
 tgaatgcaga gaacaaccc tcgtacaatc aaatccctca aagtttaggt agattgcgtta  
 300  
 atctttctgt tctgattttg agtagaaacc aattttagtgg acatattcct tcaagcattg  
 360  
 caaacatttc ctgcgtttagg cagcttgatt tgcactgaat aatttcagtg gagaaattcc  
 420  
 agtctccctt gacagtcaag cgcagctaaa tctcttcaat gtttctaca atagcctctc  
 480  
 agggtctgcc ccctctgct tggcaagaaa ttaactcaa gtcatttgt gggaaatatt  
 540  
 caactatgtg gggtagcc ttcaacccca tggcttcca agctncatca caagggggca  
 600  
 ttggccccct cctgagnggc aaacatcacc atcataggaa gctaacccca aagacataat  
 660  
 tctcatagta nccaggaggt n  
 681  
  
 <210> 60  
 <211> 644  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 60

acaacaagca acgaacagct tttaacctta aactaggcta atgccaatat taaagaagaa  
60

ataattaaaa ttgtaaggct ggtcgtgtat aaattaaaca aaaggccctc tattcaaacc  
120

ttcatatatc atacctgttt ttaattaacg cggaactactt tttcatataa aaaaaagatc  
180

attagaggat taattnaaag cgtttagtt tttaattacc aaagagtata attattatta  
240

ggcgctttgt cccacaatca atcacctaaa caagaaaaag aaaaagaaaa aaaaagtcaa  
300

attggactaa tgcaaaagtgcacaaatctt tgtcttgaac tcttaattt gcaacaaatt  
360

atactcttct gcacaaatca caagaatacc ttacatgaaa agaatggtaa tttgacgggt  
420

tacattaaat tatacgagt ttctgcagg taattaattt tcaagaattt aagggtgggt  
480

ggtaattttc aatagctagc ttgactagca aaggaaagaa taaaggtaaa atgcttcttg  
540

gtttggcctt ttggattggtaactttttctaaacggaa atggatatat gaatggtaaa  
600

ggagataaaat tggtacatag ctaaaatggtaatgncttaa tccn  
644

<210> 61

<211> 678

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 61

aaattcattt aacttctcta attttaat cgtcaaatt tggttttca atctaaaata  
60

taagaaacta tattttgtga tggtttaaa atcgacatta agtgttctta atctaccaca  
120

aaaagcacat ttccaaaaaa ataaatataat tttaaaaatt ataagatcaa attgaatcaa  
180

ttttaaaaat taaaatatta aattgaaaaaa aaaaataaag gatcaaattt aacataaata  
240

ataaatttga ggattaaaaaa actaatttaa ccttaattt tttctcactt atattaat  
300

taaaaaaatta tattgatttt cctaataact ccttatctca attaaaattt ccaaaaatta  
 360  
 attctagcat cttcaaacac tactcaccat gaaagttcat cacaaccatc tttctttctc  
 420  
 ttttctctac atcatgtttt cgcttcgcaa actttattgt gttcctagtc ttagacgtct  
 480  
 gataatcttc cacaagtatt gaactataac acttattgga cttgcacccgg taatagctaa  
 540  
 caccaaatga gacgtgcact tgactttat atcactaaga aaatttcaac acattgacca  
 600  
 agattagctc catcttgctt taacacttgg ttgacttagtc acttaagtgc aacaaccact  
 660  
 ttgatatcat tgggtgga  
 678

<210> 62  
 <211> 571  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 62  
 tcttttaaga ccattcgaca ctatagaata cgaattccat aattaacaat aaagtcatct  
 60  
 tctattatat attttttctt cttaaattac atgatagttat ttcatcatta tttgacaata  
 120  
 atgatatttt tatctcataa atattattt gttttaaaaa tattcatagc acacacgagt  
 180  
 ttttatatc aacaaagagg tatcacttca gttggtcaat ttggctaac ttttagacaa  
 240  
 tgctgtatag ttgaattgaa ttgaaatttg gcagtatata ttttactttt tgccccctta  
 300  
 ttttcaatca aatttagagta gacgcctcgt attattggca tacatggata ttggatcggc  
 360  
 acctgtgtt cagacctgag tcacatctga ctcggatcga ttttatctta catgaaaatt  
 420  
 cccaaaataat gaaagatatg gcaattggca ccatgtaact ctatggacac caatgcttca  
 480  
 ccgttagagct ctaaatttcg aggccttcta tatatacgctt tgcgtgacta tgtnaaatta  
 540

ntcaatatcn tnttaatttt tttgngggccc c  
571

<210> 63  
 <211> 856  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 63  
 aatttagtgt cttgtttatt cattaccttt tcaatttttt taatcaccat aattaaggcc  
 60  
  
 tttcgaatcc cttaagtga taaaagaaac gtgcaattat gcgaacaaat aaattttcgt  
 120  
  
 tatgttacta tttagtcaag gaggaaaaaa aagtgataag ggaagaaaca agggatattt  
 180  
  
 cctgttataa caaacttaaa atggcgacta ttttgacgac attgcaaata ctcatagtgac  
 240  
  
 gatataaatt ttgaatttaa tatacatga ataggcatat tcattttcta ccccaaaaaa  
 300  
  
 gcatactcat ttatgtacat ttaattttct ctccatagag gaattaatgt acaaccatgc  
 360  
  
 ataaggatg agcgaaaggg acagattatt gcaatccaga agcatccaag gaaagttgga  
 420  
  
 taaacaaatc aatcatata tataaaaaaa aaacaaaaat gctcctagta gaagattaaa  
 480  
  
 ggaagagttg gctatatatg gcaaaccttt tctaactggt ttacccttctt ctcatcaccc  
 540  
  
 gcattgcac accaatacgg gaactttcc cattacaaaa ctcattggaa gccaacatat  
 600  
  
 ccccaaaat tccactggat ctgcattgtc catgaaattt gacatttctt cttctacaaa  
 660  
  
 attcccatgc tatgtcggtt tccaccatcc taggtcatag tccttcttca ttccccgaat  
 720  
  
 cgnttcacac ttgtatgcaa tcttccaccc cagcctcatg ggaaacaccg ntaacactat  
 780  
  
 cactctaata tcattcttgg cataaactca tctataaacc tctcgncac gggctttta  
 840  
  
 aattctcatc ttnttn  
 856

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<210> 64
<211> 639
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 64
tccccttgg gtcccaagta ataggccctc agagccaaaa cattgggtg tctaatttt
60

cctagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat
120

ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccataggtg
180

ctctttccca tgatctcagc tggcacac aagagatcat cagctgtaaa agccattgg
240

ccatcaaaat ggacttagttt ccctccagcc tccccacctg cttcaacatc accaccagca
300

actggagggaa ctcccttttc tgcctcata gtggccgctc taccctcggt ggcttggccg
360

tcccggcctt agatgttcat ctctttctga tcaggcagaa aagcaggaca caacaaagta
420

taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtctttg ggcttagctt
480

ctatgatgggt gatggtttga cacttcagga ggtggggcaa tgactccttg tgatggagct
540

tggaaagac atggggttga agggctggac ccacatagtt gaatattcc acaaatgagc
600

ttgagttaaa attcttggca agcananggg ggacagaan
639

<210> 65
<211> 495
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 65
ttcccaatgc cgagcttcc ctatcggtt ccccacctat gangaataca ccctcgaatg
60

aaatacatgt tgggtgttggt ggacgcgcggc agccgagagt gccggccac tagtatcccc
120

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aacgtgcatttgcgc ttgaaaccta gtattcatct tcctgatgga ggcagccacg  
180

tgtccgacaa ggtcaatgtt gccgtttcg tgaaaaggaa tgataatgaa aggaccata  
240

ttgtcttggg cgaggttcaa aatggcgctcg tgcatgctct tgtaagggtgc cacgttgatg  
300

tagggaaagaa ccttgactgg cccactttagt ttgttggagt agtttcgaa ggcttgatg  
360

atgtggttgg tgggggtta attcacagac aagaattttc tgcgaccggg tctatgttt  
420

atgggaagga gaatgggtgc acttttccca cgagctcnat aagggggact gcntanacnc  
480

atatggggct ctctt  
495

<210> 66  
<211> 480  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 66  
cnttcttaga atcgaattct ttggatcatcg aacatatcatcg tcattttaa agaataagaa  
60

attnaatttag acttaatttt taagagtatg gattaaatg taaaatttgt ggggattata  
120

aacataaata agtaattttt cctatatgag acatttattt aatcttaag ataagatacg  
180

tacatgcaaa ttaaattttagt gcatgataat agaatttagt gaatagtcca atacctgaca  
240

cctctttggc ccgaagtttt tggggcactt cttgataacct aaacccacag tgaagaagag  
300

gctctggtca atttcagtgg gtacttcaac ttttcttaggg cttctgaagc ttttgctgaa  
360

ggaagtgtact gcgtttgtgt ccgttgtaag caggagtggttgg aggcatata ggtttgggtt  
420

tgttctttac tccttggca cgatggtgag aatgcttattt gtgggtatttc ggtgatttgt  
480

<210> 67  
<211> 669

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 67
atgcccaaaa aatttaccta aaagcaaata aaaaagatga gtatttcttt taaattaaaa
60

atatttaat aaaaataaaaa taaagatcca aatgataatg tgataaccga agaggaatgt
120

cttcaacca ctgcctgacc gccaccactg ccaacagcct agtatcaacc gaatccacat
180

ataccaacaa tcttcagaca aacacttcta agttggtgct gaagagacaa tatctcatgg
240

gtagatcaaa ttaagagtgc taccaataac aaaatcgaaa tcatttgact aacaaacagt
300

tatgtgcatt ggatgttcta ccatagtaca ttgctttatg tgaaattctt ttaattattc
360

aatattgaca tgggtcttat atatatatat atatatatat atatatatat atatatacga
420

gggattgtat tatctctgaa aaaagatttt atcataaaat cataatgatt tctcataatg
480

gatctntaca ttttaaaggt agataaataa aattgatttt aatngggag atataattaa
540

aanacataat taatatgact tttacaataat tgatataataa acactaaaa aaaaagntcca
600

tgacgcacng ggggnattgg tgggacaaaaaaa aaaattatct atcactaatt aaaantatta
660

taaatatan
669

<210> 68
<211> 486
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 68
tggtgtatataatg agtttaatataatgtatgtatataatgataaaaaa atttatcata
60

catgatgaat ggtgaaattt tgaattatga ttaaataatt atataaaaaa atttacatga
120

```

tgaatgaata actttttttt tctcaattaa aattatgatc ctttgcgtat atgttttact  
180

gtgtcgacct ttttttcgg gggagagggg accagtagga gaagtagtat ttagtaaaag  
240

aaggagaga gaagttgact tatccttaa ttagttaga gaaaattaga cgagaaggaa  
300

aaaaaatagg cgaaagtcac ttttcttgc tatctctacc aagaatgttg atgaaaaagt  
360

ggggaggcaga attttaaatt ttatatttca tatttatcct tctccacatt tttgntttct  
420

tccatTTTT tataaaanga ttatTTtag gcatagntaa ctttcaatt ttttcattt  
480

ctattc  
486

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<210> 69
<211> 779
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 69
tatTTgtaaa ttgTTTTta taattgaaaa gaaaataagg ttaaattatt ttcatataaa
60
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aaatttaatt tggcttata agttatggaaaatttat taaaataagt tgaaaacaat  
120

ttataaataa atcataaact ataattttat aagttttctt aaatacttac acgtatgcca  
180

taaaataaagt tcagataaga tataaataaa ttcctccaaa cacatcttaa atctatattt  
240

ttttaaaaca aactttcatc gttaaaagga tattataata ataataataa acttcaatca  
300

ttaacaatta atatatgtgg ataaaagagc attcaaaaatg atattttatt agcacatgac  
360

aaatcacatt actctcaagc tatttttta aactaataaa aacttacata ttatatgata  
420

tgatatac tctctctata tttacacttt tttgagataa acaaggataa aaaatgtgt  
480

aaatatgacc gcatataata ttatttataa tgtacggaaat gccgttttg acattttata  
540

taatataatct gggggcaatt attttcttaa ccaataatta gcaaattttt atcttgcttt  
600

ttctccatgg gggctaaatt aaactaaagg gncgtaccca atccagtcgg acttttttt  
660

aaataatnn tttccntccc acttagnaaa ggagtntttn ggcttaaatn ggcagnncca  
720

ttaaccataa gccttntgg taaggagtct taccaantaa aatggggaaag gccccccccc  
779

<210> 70

<211> 677

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 70

ttattggctt aaccttgagtt tcaactcctt ctctggcctt ttaccagcta gcctaactca  
60

ctcattttct ctcacttttc tttctcttca aaataacaat ctttctggct cccttcctaa  
120

ctcttgggtt ggaaattcca agaatggctt cttaggctt caaaatttga tcctagatca  
180

taactttttc actggtgacg ttccctgcttc tttgggttagc ttaagagagc tcaatgagat  
240

ttcccttagt cataataagt ttagtgagc tataccaaat gaaataggaa ccctttctag  
300

gcttaagaca cttgacattt ctaataatgc ctgtaatggg aacttgcctg ctaccctctc  
360

taatttatcc tcacttacac tgctgaatgc agagaacaac ctccttgaca atcaaatccc  
420

tcaaagttta ggttagattgc gtaatcttgc ttttctgatt ttgagtagaa accaatttag  
480

tggacatatt ccttcaagca ttgcaaacat ttccctcgctt aggcagcttg atttgcactg  
540

aataatttca gtggagaaat tccagctcct ttgcagtcag cgccagctaa tctcttcaat  
600

ggttcctaca atagcctctc anggtctgtc ccccccctgc ttgccaagaa atttaaactca  
660

agctcatttg tggaaat  
677

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<210> 71
<211> 571
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 71
tgggactggc tgtgactgat ctctctggc taatctttc cagctgctgg agaacttgat
60

gaacttctgg tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt
120

ttagcaactc gtcgccaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat
180

ttgtccactc ctcttgaca actgaggcaa cccactgagg caaatctagt ccattcatag
240

acaccccagg tgatttcctc gttaggagtt ctaacaagat aacaccaaga ctgttagatat
300

cagttttagt gtttgcttc ttgagcttg agagctcagg tgcccggtat cccaatgctt
360

cagctgttagc tatacgttg gaattagcag cagttgacat caaccgagaa agacaaaaat
420

ctgcaatttt agcatttgnat ttcattaa acaacacaat gntggatgng anggtncat
480

ggatgaaggt cttctngnna agnaagnaaa acaaagcacc gggccaaggn ttgggctaat
540

ttcaaccttg gggggcaaac naanaaatgt t
571

<210> 72
<211> 756
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 72
attggcttaa cttgagtttcaactcatttct ctggcctttt accagctagc ctaactcact
60

cattttctct cactttctt tctcttcaaa ataacaatct ttntggctcc cttnctaact
120

gtgggggggg gaatancaag ggnggcttta ggctgcaaaa tttgatccta gatcataact
180

```

tttcactgg tgacgttcct gcttcttgg gtagcttaag agagctcaat gagattccc  
240

ttagtcataa taagtttagt ggagctatac caaatgaaat aggaaccctt tctaggctt  
300

agacacttga catttctaat aatgccttga atggaaactt gcctgctacc ctctctaatt  
360

tatcctcaact tacactgctg aatgcagaga acaacctcct tgacaatcaa atccctcaaa  
420

gtttaggtag attgcgtact ctttcctgtt ccgattttga gtagaaacca atttagtgg  
480

catattcctt caagcatngc nnacatttcc tcgcttaggc agcttgatttgc tcactgaata  
540

atttcaggtg gagaatttnc agtctncttt gacagtcagc gcagtctaaa tcttcttcaa  
600

tggtnctac aataggcctc tcagggtctg gcccccttt gnttggccaa ggaaanttaa  
660

cttaagctta tttggngggg aaanattcaa ctatgggggg acncggccct ttaaaccctt  
720

gggnntttcc caggttcctt ccaagggngc anttgt  
756

<210> 73  
<211> 557  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 73  
tgtgactgat ctctctggtc taatctttc cagctgctgg agaacttgat gaacttctgg  
60

tcgtgctgat ggagaaggat caacacagtg caaagcgagc ttcaacgtgt ttagcaactc  
120

gtcgccaaact gtggatgcat ctctcatcaa gtctgcatca aaaacctcat ttgtccactc  
180

ctctttgaca actgaggcaa cccactgagg caaatctagt ccattcatag acnccccagg  
240

tgatttcntc gtaggagtt ntaacaagat aacaccaaga ctgtagatat cagtttttagt  
300

gtttgcttcc ttgagctttg agagttttagg gncccgant cccanngntc nagttgnagt  
360

tatancgttg gaatttagcag nagttgcntc aaccgaaaaaa gacaaaatc tgaattttag  
420

catttgaaaa tcatcaagca acacatttgtt ggtatgngagg tcccatgtat gatgttctcc  
480

tggaaatgaa ggcaaacaag cccggccaa ggcttgggct atttaatcc ttgggtggcca  
540

aacaatgaaa ggttnat  
557

<210> 74

<211> 673

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 74

gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaaacttgatg  
60

aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcatt tctcatcaag tctgcattcaa aaacctcatt  
180

tgtccactcc tctttgacaa ctgagggAAC ccactgaggc aaatcttagtc cattcataga  
240

caccccaaggat gatttcctcg ttaggaggatc taacaagata acaccaagac tgttagatatc  
300

agtttttagtg tttgctttct tgagcttttg agaagctcag gtgcccggta tcccaaatgc  
360

ttccagctgt agcttatacac cggtggaaat taagcagcaa gttggacatt caacccggag  
420

aaaaagaccc aaaaattttg caaatttttta agcaatttng gnanttcttn aatcaaggcc  
480

aaccaccaat tggnttggga atgggtggaaag ggtttccccca atggtaatttgc aagggtttc  
540

tccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaaggt  
600

nttttggggg ctttattttt tncnaatncc ctttgggnngg ggncccaaatt tcnaaaantgg  
660

aaattggntt tnn  
673

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<210> 75
<211> 602
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 75
aggctagctg gtaaaggacc agagaaggat ttgaaactca agttaagcca ataaagctta
60

gtgaaattag caagactata agggattgct cctgtgagca agttgttgct gaggtcaaga
120

gactgaagca aaggccagaa acctaaagaa agaggtatgg aacctgtaaag cctattgttg
180

aataactgaa cccctctaag gttggaaaga agtccaaag ttgaaggat tgaaccacca
240

atgggttat catgaagact aagcttcctg aggcccttcaa gttggccat tttggcggtg
300

atcgacccc tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac
360

ttgattccaa cccaacctcc ggaacaagct ccatagccac tggcattcca gctcccgcaa
420

gaacccttct ggatcagcca actcttgctt gaaagcttat cacaatgtacc tctctacaga
480

taggagggtg cttttccct ttcactggnc tacctttcg ggaataagcc acctaattgag
540

aaagaaagan ctggatagc taactctaca tagnctcaag gcnagagata attagggaaa
600

ng
602

<210> 76
<211> 748
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 76
attggcttaa cttgagttc aactccttct ctggccctt accagctagc ctaactcact
60

cattttctct cactttctt tctcttcaaa ataacaatct ttctggctcc cttcctaact
120

```

cttggggtgg gaattccaag aatggcttct ttaggcttca aaatttgate ctagatcata  
180

actttttcac tggtgacgtt cctgcttctt tgggttagctt aagagagctc aatgagatTT  
240

cccttagtca taataagttt aatggagctg taccaaATGA aatAGGAACC ctttcttaggc  
300

ttaagacact tgacatttct aataatgcct tgaatggaa cttgcctgt accctctcta  
360

atttattcctc acttacactg ctgaatgcag agaacaacct cttgacaat caaatccctc  
420

aaagtttagg tagattgcgt aatctttctg ttctgatttt ggtagaaac caatTTAGTg  
480

gacatattcc ttcaaggcatt gcaaacattt cctcgcttag gcagcttgat ttgcactgaa  
540

taatttcaGT ggagaaattc cagtctcctt tgacagtcaa gcgcaagtct aaatctcttc  
600

aatgtttcct acaatagcct ctcanggtct gnccccctc tgcttgccaa gaaatttaac  
660

tcaagctcat ttgtggaaa tattcaacta tgtggacag ncctcaacc ccatgttttn  
720

ccaagcttca tacaaggagc atggccct  
748

<210> 77

<211> 563

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 77

ctggctgtga ctgatctctc tggctaaatc tcttccagct gctggagaac ttgatgaact  
60

tctggtcgtg ctgatggaga aggatcaaca cagtgcAAAG cgagcttcaa cgtgtttAGC  
120

aactcgtcgc caactgtgga tgcattcttc atcaagtctg catcaaaaac ctcatttgc  
180

cactcctctt tgacaactga ggcaacccac tgaggcaaATC ctagtccatt catagacacc  
240

ccaggtgatt tcctcgTTAG gagttctAAC aagataaacAC caagactgta gatATCAGTT  
300

ttagtgttg ctttcttgag ctttgagagc tcaggtgccg ggtatccaa tgctccagct  
360

gtagctatca cggttggatt agcagcagtt gacatcaacc cgagaaagac caaaaatctgc  
420

aatttttagca tttgtattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat  
480

gatgttctcc tggaaatgaa ggcagaacaa gccacggcca agcttggcta tttcatcct  
540

gtggccaatc aatgaatggt cat  
563

<210> 78

<211> 623

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 78

gattttgcac atctacttga gtaggcttca catgattccg tgtattactt ttatttgg  
60

atataatacca tgtggagttt agtatactt tttgtcctac aaccacattt tatgagactt  
120

gcattttatg tgacatgaac ataaaaaaaata atgaaaaaga aatgtcaca tatatatgt  
180

acaatctttt taaaagtcaa tttgaataat ttttcattcag gagaaaaaaag aagagagaaa  
240

atgaatthaag tttcttctaa aaataaaaat caacttataa aaagaaaaaa ctttaatgaa  
300

aaaaattcaa aaagaaaaag aataaaatga tcaatagcct ttaggtttaa gcacaagg  
360

aatccaaata aagacccaa aagatagtac agaacccaaac aatggtaaaa tctagaaata  
420

tacatgtaaa gactgcattt atagaccatc atgacttagca aatgcttaaa ggcacataga  
480

tgaatthaatc tatgcaacaa aatctgnccc aagtttttt tangcaagga aaatcatatc  
540

attttattaa ggataactga gaggaccaat ggtgtatca attgaaatca tgcgaggctt  
600

acatgaaatc tgcaccaag tac  
623

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<210> 79
<211> 605
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 79
ctcccgggtc ccaagtaata ggcccccctag agccaaaaca ttgggggggc taattttcc
60

tagaacacgt acttctgatt caaattctct atgaccttta gtgatctttt ccctcaatct
120

ctttactgca acttgacttc catcctccaa aatagcctta taaacagntc cataggtgct
180

ctttcccatg atctcagctg gtgcacacaa gagatcatca gctgtaaaag ccattggtcc
240

atcaaaatgg actagttcc ctccagcctc cccacctgct tcaacatcac caccagcaac
300

tggagggact ccttttctg cctcatacgatg gccgctctac cctcggtggc ttggccgntc
360

ccggccttag atgntgatct ctttctgatc aggcagaaaa gcaggacaca acaaagnata
420

atcaggacta cgaggagaac tcctgctact atgagaatta tgnctttggg gcttagctc
480

ctatgatggg gatggttnga cacttcanga gggggggcaa tgactccctg gganggagct
540

tgggaaagac atgggggtga aggnctgnac ccacataggn gaaaaattcc cacaangag
600

cnngn
605

<210> 80
<211> 711
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 80
ttaangncca acgactcaact atagggcgaa ttggggcccgaa cgtcgcatgc tcccggccgc
60

catggccgcg ggattggctt aacttgagtt tcaactcctt ctctggtcct ttaccagcta
120

```

gccttaactca ctcattttct ctcacttttc tttctcttcn taaaataaaca atctttctgg  
180

ctcccttcct aactcttggg gtgggaattc caagaatggc ttctttaggc ttcaaaattt  
240

gatcctagat cataactttt tcactggtga cgttcctgct tctttggta gcttaagaga  
300

gctcaatgag atttccctta gtcataataa gtttagtgga gctataccaa atgaaatagg  
360

aaccctttct aggcttaaga cacttgacat ttctataat gccttgaatg ggaacttgcc  
420

tgctaccctc tctaatttat cctcacttac actgctgaat gcagagaaca acctccttga  
480

caatcaaatc cctcaaagtt taggttagatt gcgtaatctt tctgttctga ttttgagtag  
540

aaaccaattt agtggacata ttcccttcaag cattgcaaac atttcctcgc ttaggcagct  
600

tgatttgcata ctgaataatt tcagtggaga aattccagtc tccttgaca gtcagcgcag  
660

tctaaatctc ttcaatgttt cctacaatag cctctcaggg tctgtccccc n  
711

<210> 81  
 <211> 716  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 81  
 ttnntgaaaa ccctttgcta ttttaggtgac actatagaat actcaagcta tgcatccaac  
 60

gcgttggag ctctccata tggtcgacct gcaggcggcc gcactagtga ttaatacgcac  
120

tcactatagg gctcgagcgg ccgccccggc aggtggact ggctgtgact gatctctctg  
180

gtctaaatctc ttccagctgc tggagaactt gatgaacttc tggcgtgct gatggagaag  
240

gatcaacaca gtgcaaagcg agcttcaacg tggtagcaa ctcgtcgcca actgtggatg  
300

catctctcat caagtctgca tcaaaaaacct catttgcaca ctcctcttg acaactgagg  
360

caacccactg aggcaaatct agtccattca tagacacccc aggtgattc ctcgttagga  
420

gttctaaca gataacacca agactgtaga tatcagttt agtgttgct ttcttgagct  
480

ttgagagctc aggtgcccgg tatcccaatg ctccagctgt agctatcacg ttggaattag  
540

cagcagttga catcaaccga gaaagaccaa aatctgcaat tttagcattt gtattctcat  
600

caagcaacac attgctggat gtgaggttcc catgtatgat gttctcctgg gaatgaaggc  
660

agaacaagcc acgggccaag tcttgggcta ttttcatcct tggggccca atcaan  
716

<210> 82

<211> 713

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 82

ttcctaangc ctacgactcc tatagggcga attgggcccgg acgtcgcatg ctccggccg  
60

ccatggccgc gggattatac gactcactat agggctcgag cggccactat gaggacagaa  
120

aaaggagtcc ctccagttgc tgggtggat gttgaagcag gtggggaggg tggagggaaa  
180

ctagtcattt ttgatggacc aatggctttt acagctgatg atctcttgc tgcaacagct  
240

gagatcatgg gaaagagcac ctatgaaact gtttataagg ctattttggaa ggatggaagt  
300

caagttgcag taaagagatt gagggaaaag atcactaaag gtcatacgaga atttgaatca  
360

gaagtcagtg ttcttaggaaa aattagacac cccaatgttt tggctctgag ggcctattac  
420

ttgggaccca aagggaaaaa gcttctgggtt ttgattaca tgtctaaagg aagtcttgct  
480

tctttcctac atggtaagtt tcgtgtgctg ttcttcatt aagtgttgc tgtgctgttc  
540

tttaattata atttggagtt ttaccttagt aatctgtata attctaatacg gagaacagta  
600

caaacaaaaa cacctaagga acaacaccc ttancttaata taccatatca ataagtgaat  
660

tatTTTCTTA ttcatcttga tgcaggtggt ggaactgaaa catttatttg atn  
713

<210> 83  
 <211> 712  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 83  
 nnnctaaggc ccnttactca ctatngggcg aattgggccc gacgtcgcat gctccggcc  
60

gccccatggccc gcgggattgg cttaacttga gtttcaactc cttctctggc cctttaccag  
120

ctagcctaacc tcactcattt tctctcaactt ttctttctct ttaaaaataac aatctttctg  
180

gctcccttcc taactcttgg ggtggaaatt ccaagaatgg cttctttagg cttcaaaatt  
240

tgatcctaga tcataacttt ttcactggtg acgttcctgc ttctttgggt agcttaagag  
300

agctcaatga gatTTccctt agtcataata agtttagtgg agctatacca aatgaaatag  
360

gaacccttcc taggcttaag acacttgaca tttctaataa tgccttgaat gggaaacttgc  
420

ctgctaccct ctctaattta tcctcactta cactgctgaa tgcagagaac aaccccttgc  
480

acaatcaaat ccctcaaagt ttaggttagat tgcgtaatct ttctgttctg attttgagta  
540

gaaaccaatt tagggacat attccttcaa gcattgcaaa catttcctcg cttaggcagc  
600

ttgatttgc a ctgaaataatt tcagtggaga aattccagtc tcctttgcag tcagcgcagt  
660

ctaaatctct tcaatggttt ctacaatagn ctctcagggt ctgnccccc tn  
712

<210> 84  
 <211> 681  
 <212> DNA  
 <213> soybean  
 <220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 84
ggnttctta gggctcaaa atttgatcct agatcataac tttttcact ggtgacgttc
60

ctgcttctt gggtagctta agagagctca atgagatttc ccttagtcat aataagttta
120

gtggagctat accaaatgaa ataggaaccc tttctaggct taagacactt gacatttcta
180

ataatgcctt gaatgggaac ttgcctgcta ccctctctaa tttatcctca cttacactgc
240

tgaatgcaga gaacaacctc cttgacaatc aaatccctca aagtttaggt agattgcgta
300

atctttctgt tctgattttg agtagaaacc aatttagtgg acatattcct tcaagcattg
360

caaacatttc ctcgcttagg cagcttgatt tgcactgaat aatttcagtg gagaattcc
420

agtctcctt gacagtcaag cgtagctaaa tctcttcaat ggttcctaca atagcctctc
480

agggtctgcc cccctctgct tggcaagaaa tttaactcaa gtcatttgc gggaaatatt
540

caactatgtg gggtagcc ttcaacccca tggcttcca agctncatca caagggggca
600

ttggccccct cctgagnggc aaacatcacc atcataggaa gctaacccca aagacataat
660

tctcatagta nccaggaggt n
681

<210> 85
<211> 639
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 85
tccccttgg gtcccaagta ataggccctc agagccaaaa cattgggtg tctaatttt
60

cctagaacac tgacttctga ttcaaattct ctatgacctt tagtgatctt ttccctcaat
120

ctctttactg caacttgact tccatcctcc aaaatagcct tataaacagt tccataggtg
180

```

ctctttccca tcatctcagc tggtgcacac aagagatcat cagctgtaaa agccattgg  
240

ccatcaaaat ggactagttt ccctccagcc tccccacctg cttcaacatc accaccagca  
300

actggaggga ctccttttc tgcctcata gtggccgctc taccctcggt ggcttggccg  
360

tccccgcctt agatgttcat ctctttctga tcaggcagaa aagcaggaca caacaaagta  
420

taatcaggac tacgaggaga actcctgcta ctatgagaat tatgtcttg ggcttagct  
480

ctatgatgggt gatggttga cacttcagga ggtggggcaa tgactccttg tgatggagct  
540

tggaaagac atggggttga agggctggac ccacatagtt gaatatttcc acaaatgagc  
600

ttgagttaaa attcttggca agcananggg ggacagaan  
639

<210> 86

<211> 661

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 86

gaaggatgggt tattttgaag agaaagaaaa gtgagagaaa atgagtgagt taggctagct  
60

ggtaaaggac cagagaagga gttgaaactc aagttaagcc aataaagctt agtggaaatta  
120

gcaagactat aagggattgc tcctgtgagc aagttgttgc tgaggtcaag agactgaagc  
180

aaagggcaga aacctaaaga aagaggtatg gaacctgtaa gcctattgtt gaataactga  
240

acccctctaa ggttggaaag aagtccaaa gttgaaggga ttgaaccacc aatttggta  
300

tcatgaagac taagcttctg aggccttgaa gttggccaat tttgtcggtg attcgacccc  
360

tcaaaccctt ccaaggaagc tggatcacaa taacctgtcc ctgagcacac ttgattccaa  
420

cccacccctccg gaacaagctc catagccact gtcattccag cttccgcaag aacccttctg  
480

gatcagccaa ctcttgcttg aaaagcttat cacatgtacc ttttacagat aggaggntgc  
540

tttttcctt cactggtcta cctcttcgga ataagccaa ctaatgagaa agaaagatct  
600

gngatagctn acttacatac tnagnagag ataattantg naagcnnaag ttaaacntnt  
660

t  
661

<210> 87  
<211> 626  
<212> DNA  
<213> soybean

<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 87  
aattcgtggg ctacaaagga tgaacgtaaa ctatatgcac ctccagctgg ttcaggcttc  
60

atatctggct ttacttctat ctcacgcaga tcttctgttg atagtactca aaatctgtct  
120

attccttttg gtccaagctc atacctttct gcacaggctc gagtagttga tgagtattct  
180

atgtcccaga ttatcttaca aaatgtgctt gatggagggg tcactggat gttaatagtt  
240

gtcactggtg caagccatgt tacatatgga tctagagggaa ctggagtgcc agcaagaatt  
300

tcagggaaaa tacaaaagaa aaaccatgca gttatattac ttgaccctga aagacaattc  
360

attcgcagag aaggagaagt tcctgttgct gatTTTTGT ggtattctgc tgcgagaccc  
420

tgttagtagaa attgcttga ccgtgctgag attgctcggg ttatgaatgc tgctggcgg  
480

aggcgagatg ccctcccaca ggtaaaccaa caattacagt tactaatttg tttgactgtt  
540

aatcttcttg ccccatagac cctncttcca attttagcc ctatgtcc tctcattcct  
600

agngggataa gggtttgggg gnggtg  
626

<210> 88  
<211> 627

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 88
tgaaaaactg aaggaccaaa ttaaatctaa aaaataaata aataaaaaga ctaaaaaata
60

aatctatcca aaataaaaag gtttattctt ggaagtaatg aaatgtattt tgactcttg
120

aagaatgcat tactataatg aaagagtagg tggagagagg ggataataaa atcccactaa
180

ataacatcca tgactatcac tataaaaaaa aatattatta ttaagataag aagaattatc
240

taacttgaat aagagactac taccaaagtg agaaaaaggt cttataacat agagttttc
300

aagtttacct ataaaacttg taataagatt tgtttccaa ccatctaatt ttttatttagt
360

gtggactgca taaaaaaaat atagtaacaa gaaactacta aattagactt tttgaactat
420

tcattgtatg gctgccatga aacctacctg cctggagggg tgggtcccac gtaagactgt
480

aagagggagg agggaagcac tagtcacaca ccggcgcacg ttagcgaggc aatgttccta
540

gattgaaacg gagaaggtga ttagaggggc ggaaatctca aagcagacac aggcaactaa
600

tttatcgctt cttcctcat tcgctta
627

<210> 89
<211> 782
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 89
cacataatta acaataaagt catttctat tatatatttt ttcttcttaa attacatgtat
60

agtatttcat cattatttga caataatgtat atttttatct cataaatattt attttgttt
120

aaaaatattc atagcacaca cgagttttt atatcaacaa agaggtatca cttcagttgg
180

```

tcaatttgtt ctaactttta gacaatgtcg tatagttgaa ttgaattgga atttggcagt  
240

atataatttta ctttttgc(cc ccttattttc aatcaaattt aagtagacgc ctcgtattat  
300

tggcatacat ggttatttgg a tcggcacctg tgtttcagac ctgagtcaca tctgactcgg  
360

atcgattttt a ttttacatga aaattccaaa ataatgaaag atatggtaat tggcaccatg  
420

taactctatg gacaccaatg cttcacgtag agctctaaat ttgaggcctt ctatataatag  
480

tttgcgtgac tatgtaaattt atcaatatca tttaattttt ttgcgaccac gaaatatacg  
540

aatttattat tgaacacaaa aagtagagtg tatattttaa gtctaggatt ttatgagagg  
600

caaaaataag aataacctct tgatatattt tcttggatac actttcttta ttatataattt  
660

tttaataatg gattataattt tattggaaac aatcaaattt tangggaaaa ttcattggaa  
720

taaaagaang aaatttaaaa aaaaatataa ttttaataa atttaaatgaa taaaatcct  
780

tt  
782

<210> 90  
<211> 160  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 90  
tggttgagat gtgtataaga gacagttgcc ccacccctg aagtgtcaaa acatcaccat  
60

cataggaagc taagcaccaa agacataattt ctcataatgt caggagttct cctcgtatgc  
120

ctgattataac tttgttgtgt cctgctttc tgcctgatca  
160

<210> 91  
<211> 779  
<212> DNA  
<213> soybean  
<220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 91
tgctccggc gcatggccgn gggattggct taacttgagt ttcaactcct tctctggcc
60

tttaccagct agcctaactc actcatttc tctcactttt ctttctcttc aaaataacaa
120

tcttntggc tcccttncta actgtggggg ggggaatanc aagggnngct ttaggctgca
180

aaatttgatc ctagatcata acttttcac tggtgacggt cctgcttctt tgggttagctt
240

aagagagctc aatgagattt cccttagtca taataagttt agtggagcta taccaaatga
300

aataggaacc ctttcttaggc ttaagacact tgacatttct aataatgcct tgaatggaa
360

cttgccgtct accctctcta atttacccctc acttacactg ctgaatgcag agaacaacct
420

ccttgacaat caaatccctc aaagtttagg tagattgcgt actcttctt gttccgattt
480

tgagtagaaaa ccaatttagt ggacatattc cttcaagcat ngcnnacatt tcctcgctta
540

ggcagcttga ttgtcaactga ataatttcag gtggagaaat tncagtctnc tttgacagtc
600

agcgcaagtct aaatcttctt caatggttnc tacaataggc ctctcagggt ctggcccccc
660

tttgnttggc caagggaaant taacttaagc ttatggng gggaaanatt caactatggg
720

gggacncggc cctttaaacc ccagggnttt tcccagggttc cttccaaggg ngcanttgt
779

<210> 92
<211> 743
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 92
ttggcttaac ttgagttca actccttctc tggtccttta ccagctagcc taactcactc
60

attttctctc acttttcttt ctcttcaaaa taacaatctt tctggctccc ttcctaactc
120

```

ttgggggtggg aattccaaga atggcttctt taggcttcaa aatttgcataa  
180

ctttttcaact ggtgacgttc ctgcttctt gggtagctta agagagctca atgagatttc  
240

ccttagtcat aataagtttta gtggagctat accaaatgaa ataggaaccc tttcttaggct  
300

taagacactt gacatttcta ataatgcctt gaatgggaac ttgcctgcta ccctctctaa  
360

tttacactca cttacactgc tgaatgcaga gaacaacctc cttgacaatc aaatccctca  
420

aagtttaggt agattgcgtt atctttctgt tctgattttg agtagaaacc aatttagtgg  
480

acatattcct tcaaggcattt caaacatttc ctcgctttagg cagcttgatt tgtcactgaa  
540

taatttcaagt ggagaaattt cagtcttctt tgacagtcag cgcaagtctaa atctcttcaa  
600

tgtttcctac aatagcctct cangttctgn cccccctctg cttgccaaga aattaactca  
660

agctcatttt tggaaatat tcaactatgt gggacaggcc ttcaacccca ngcttncca  
720

agcttcatca caaggggcat tgg  
743

<210> 93

<211> 742

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 93

ttaacttgag ttcaactcc ttctctggc cttaaccaggc tagcctaact cactcattt  
60

ctctcacttt tctttcttcaaataaca atctttctgg ctcccttcct aactcttggg  
120

gtggaaattt caagaatggc ttctttaggc ttcaaaattt gatcctagat cataactttt  
180

tcactggtga cgttcctgct tctttggta gcttaagaga gctcaatgag atttccctta  
240

gtcataataa gtttaatgga gctgtaccaa atgaaatagg aacccttctt aggcttaaga  
300

cacttgacat ttcttaataat gccttgaatg ggaacttgcc tgctaccctc tctaatttat  
 360

cctcacttac actgctgaat gcagagaaca acctccttga caatcaaatc cctcaaagtt  
 420

taggttagatt gcgtaatctt tctgttctga ttttggtag aaaccaattt agtggacata  
 480

ttcccttcaag cattgcaaac atttcctcgc ttaggcagct tgatttgcac tgaataattt  
 540

cagtggagaa attccagtct ccttgacag tcaagcgcaa gtctaaatct cttcaatgtt  
 600

tcctacaata gcctctcang gtctgncccc cctctgcttg ccaagaaatt taactcaagc  
 660

tcatttgtgg gaaatattca actatgtggg acagnccttc aacccatgt ttnccaagc  
 720

ttcatacaag gagcatggcc ct  
 742

<210> 94  
 <211> 741  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 94  
 cttaacttga gtttcaactc cttctctggt cctttaccag ctagcctaac tcactcattt  
 60

tctctcactt ttctttctct tcaaaataac aatctttctg gtcgccttcc taactcttgg  
 120

ggtggaaatt ccaagaatgg cttctttagg cttcaaaatt tgatcctaga tcataacttt  
 180

ttcactggtg acgttcctgc ttctttgggt agcttaagag agctcaatga gatttcctt  
 240

agtcataata agtttagtgg agctatacca aatgaaatag gaacccttcc taggcttaag  
 300

acacttgaca tttctaataa tgccttgaat gggacttgc ctgctaccct ctctaattta  
 360

tcctcactta cactgctgaa tgcagagaac aacctccttgc acaatcaaat ccctcaaagtt  
 420

ttaggttagat tgcgtaatct ttctgttctg atttttagt gaaaccaatt tagtggacat  
 480

atcccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgca ctgaataatt  
540

tcagtggaga aattccagtc tccttgaca gtcaagcgca gtctaaatct cttcaatgtt  
600

tcctacaata gcctctcang ttctgcccc ctctgcttgc caagaaattt aactcaagct  
660

catttggaaa aaatattcaa ctatgtggga caggccttca accccatgtt tttccaagct  
720

ccatcacaag gggcattgcc t  
741

<210> 95

<211> 743

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 95

cttaacttga gttcaactc cttctctggc cctttaccag ctgcctaac tcactcattt  
60

tctctcactt ttctttctct tcaaaataac aatctttctg gtccttcc taactcttgg  
120

ggggaaattt ccaagaatgg cttctttagg cttcaaaattt tgatcctaga tcataacttt  
180

ttcactggtg acgttccctgc ttctttgggt agcttaagag agctcaatga gattccctt  
240

agtataata agtttagtgg agctatacca aatgaaatag gaacccttgc taggcttaag  
300

acacttgaca ttcttaataa tgccttgaat gggacttgc ctgctaccct ctctaattt  
360

tcctcactta cactgctgaa tgcagagaac aaccccttgc acaatcaaattt ccctcaaagt  
420

ttaggttagat tgcgtaatct ttctgttctg atttttagta gaaaccaatt tagtggacat  
480

atcccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgca ctgaataatt  
540

tcaaggggag aaattncaatgtt ctccttgc agtcaagcgca aagtctaaat ctcttcaatg  
600

gttcctacaa taagcctctc anggtctgnc cccctctgc ttgncaagaa aattaactca  
660

agctcatttg gggaaatat tcaactatgn gggacagncc ttcaacccat gtttccaag  
720

ctccatacan gagcatggcc cnt  
743

<210> 96  
<211> 742  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 96  
cttaacttga gttcaactc cttctctggt cctttaccag ctagcctaac tcactcattt  
60

tctctcactt ttctttctct tcaaaataac aatcttctg gtccttc taactcttgg  
120

ggtgggaatt ccaagaatgg cttctttagg cttcaaaatt tgatcctaga tcataacttt  
180

ttcactggtg acgttcctgc ttctttgggt agcttaagag agctcaatga gattccctt  
240

agtcataata agtttagtgg agctatacca aatgaaatag gaacccttc taggcttaag  
300

acacttgaca tttctaataa tgccttgaat gggacttgc ctgctaccct ctctaattta  
360

tcctcaactt cactgctgaa tgcagagaac aaccccttg acaatcaaat ccctcaaagt  
420

ttaggttagat tgcgtaatct ttctgttctg attttgagta gaaaccaatt tagtggacat  
480

attccttcaa gcattgcaaa catttcctcg cttaggcagc ttgatttgc actgaataat  
540

ttcaggggga gaaattccag ttcctttga cagtcagcgc aagtctaaat ctctcaatg  
600

gttcctacaa tagcctctca nggtctgncc cccctctgtc tgncaagaaa ttaactcaag  
660

ctcatttgtg ggaaatattc aactatgngg gacaggcctt caacccatgt ttttccaagc  
720

ttcataacaag gagtaatggc ct  
742

<210> 97  
<211> 716

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 97
ggacagaaaa aggagtccct ccagttgctg gtgggtatgt tgaagcaggt ggggaggctg
60

gagggaaact agtccatTTT gatggaccaa tggCTTTac agctgatgtat ctcttgtgtg
120

caacagctga gatcatggga aagagcacct atggaactgt ttataaggct attttggagg
180

atggaagtca agttgcagta aagagattga gggaaaagat cactaaaggat catagagaat
240

ttgaatcaga agtcagtgtt ctaggaaaaa tttagacaccc caatgtttt gctctgaggg
300

cctattactt gggacccaaa gggaaaagc ttctggttt tgattacatg tctaaaggaa
360

gtcttgcttc tttcctacat ggtaagttc gtgtgctgnt ctccattaa agtgntgggn
420

gggctggtct ttaattataa tttggagttt taccttanta atctgtataa ttctaatcgg
480

agacaagtca aacaaaaacc ctaaggaaca acnccttanc tttaatatnc catatcaata
540

angngaattta ttttnttggt tcatttgatg cnngggggng gnacntnaaa ctttnatttg
600

ntgggccacn anggnnnnaa aannncacaa anantggnc cngnggnttn gnnntgcctt
660

tantnccang anaaacatna tacanggnan ctnncntcnn naangtnntn gttngn
716

<210> 98
<211> 616
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 98
ggacagaaaa aggagtccct ccagttgctg gtgggtatgt tgaagcaggt ggggaggctg
60

gagggaaact agtccatTTT gatggaccaa tggCTTTac agctgatgtat ctcttgtgtg
120

```

caacagctga gatcatggga aagagcacct atggaactgt ttataaggct attttggagg  
 180

atggaagtca agttgcagta aagagattga gggaaaagat cactaaaggt catagagaat  
 240

ttgaatcaga agtcagtgtt ctagaaaaaa ttagacaccc caatgtttg gctctgaggg  
 300

cctattactt gggacccaaa ggggaaaagc ttctggttt tgattacatg tctaaaggaa  
 360

gtcttgcttc tttcctacat ggtaagttc gtgtgctgtt ctttcattaa gtgttgtgt  
 420

tgctgttctt taattataat ttggagnttt accttagtaa tctgtataat tctaattcgga  
 480

gaacagtcaa acaaaacacc taaggaacaa caccttagct ttaatatcca tatcaataag  
 540

tgaatatttt ctgggtcattc ttgatgcagg ngngnggaaact tgaacaatca ttgattggnc  
 600

caccanggat gaaaat  
 616

<210> 99  
 <211> 532  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 99  
 actggctgtg actgatctct ctggtctaatt ctcttccagc tgctggagaa cttgatgaac  
 60

ttctggtcgt gctgatggag aaggatcaac acagtgcacaa gcgagcttca acgtgttag  
 120

caactcgctcg ccaactgtgg atgcattctt catcaagtctt gcatcaaaaa cctcatttgt  
 180

ccactcctct ttgacaactg aggcaacccaa ctgaggcaaa tctagtcatt tcataagacac  
 240

cccaggtgat ttccctcgta ggagttctaa caagataaca ccaagactgt agatatcagt  
 300

tttagtgttt gctttcttga gctttgagag ctcaggtgcc cggtatccca atgctccagc  
 360

tgttagctatc acgttggaaat tagcagcagt tgacatcaac cgagaaagac caaaatctgc  
 420

aatttttagca tttgttattct catcaagcaa cacattgctg gatgtgaggt tcccatgtat  
480

gatgttctcc tggaaatgaa ggcggaaacaa gccacggggcc aagtcttgtg ct  
532

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<210> 100
<211> 568
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 100
tatgaggaca gaaanttnag tccctccagt tgctggtggt gatgttgaag caggtgggga
60
```

ggctggaggg aaactagtcc attttgatgg accaatggct tttacagctg atgatcttt  
120

gtgtgcaaca gctgagatca tggaaagag cacctatgga actgtttata aggctatttt  
180

ggaggatgga agtcaagttg cagtaaagag attgaggaa aagatcacta aaggtcatag  
240

agaatttgaa tcagaagtca gtgttctagg aaaaattaga caccccaatg ttttggctct  
300

gagggcctat tactgggac ccaaaggga aaagcttctg gttttgatt acatgtctaa  
360

420 aggaagtctt gcttctttcc tacatggtaa gtttcgtgtg ctgttctttc attaagtgtt

gtgtgtgctg ttcttaatt ataatttgg a gtttaccc t agtaatctgt a ataattctaa  
480

tcggagaaca gtc当地acaaa aacccttaagg aacacacccctt actttaatat accatatatcaa  
540

taa<sup>g</sup>ngaa<sup>t</sup>n atttcttggt catcttga  
568

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<210> 101
<211> 678
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 101
ggggggactg gctgtgactg atctctctgg tctaatctct tccagctgct ggagaacctg
60
```

atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt  
120

gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
180

atttgtccac tcctctttga caactgaggc aacccactga ggcaaatacta gtccattcat  
240

agacacccca ggtgatttcc tcgtagggag ttctaacaag ataacaccaa gactgttagat  
300

atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccgt atcccaatgc  
360

tccagctgta gctatcacgt tggaattagc agcagttgac atcaaccgag aaagacccaa  
420

atctgcaatt ttagcatttgc tattctcatc aagcaacaca ttgctggatg tgaggttccc  
480

atgtatgatg ttctcctggg aatgaaggca gaacaagcca cgggccaagt cttngctat  
540

tttcatcctt ggtggccaat caatgaatgg ttcagtnca ccacctgcat caagatgaac  
600

aagaaaataa ttcaatttatt gatatggnat attaaaagct aagggtggc ccctaggggg  
660

tttggtttggc ccggncnn  
678

<210> 102

<211> 673

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 102

ggtagggactg gctgtgactg atctctctgg tctaattctt tccagctgt ggagaacttg  
60

atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt  
120

gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
180

atttgtccac tcctctttga caactgaggc aacccactga ggcaaatacta gtccattcat  
240

agacacccca ggtgatttcc tcgtagggag ttctaacaag ataacaccaa gactgttagat  
300

atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc  
360

tccagctgta gctatcacgt tggaatttagc agcagttgac atcaaccgag aaagacccaaa  
420

atctgcaatt ttagcattt tattctcatc aagcaacaca ttgctggatg tgagggtccc  
480

atgtatgatg ttctcctggg aatgaaggca gaacaagcca cggccaagtc ttngngctatt  
540

ttcatccttg ttggccaatc aatgaatggt tcaagttccc cacctgcac aagatgaaca  
600

agaaaataat tcacttaatg gatatggnat attaaagcta aggggtggtc cntagggggtt  
660

ttgggttgnc cng  
673

<210> 103

<211> 665

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 103

ggtgggactg gctgtgactg atctctctgg tctaattctct tccagctgct ggagaacttg  
60

atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt  
120

gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
180

atttgtccac tcctctttga caactgaggc aaccactga ggcaaattctt gtccattcat  
240

agacacccca ggtgatttc tcgttaggag ttctaacaag ataacaccaa gactgttagat  
300

atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc  
360

tccagctgta gctatcacgt tggaatttagc agcagttgac atcaaccgag aaagacccaaa  
420

atctgcaatt ttagcattt tattctcatc aagcaacaca ttgctggatg tgagggtccc  
480

atgtatgatg tctnctggga atgaaggcan aacaagccac ggccaagtct tgggctattt  
540

tcatccttgt ggncaatcaa tgaatggtta anttcccccc ctgcttcaag atgaacaaga  
600

aaataattca cttattggtt gggntatnaa actaagggn gnccctaggg gnttngntgn  
660

ccnct  
665

<210> 104  
<211> 671  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 104  
ggtgggactg gctgtgactg atctctctgg tctaattctt tccagctgct ggagaacttg  
60

atgaacttct ggtcgtgctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt  
120

gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
180

atttgtccac tcctctttga caactgaggc aaccactga ggcaaattctt gtccattcat  
240

agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgttagat  
300

atcagtttta gtgttgctt tcttgagctt tgagagctca ggtgcccgt atcccaatgc  
360

tccagctgta gctatcacgt tggaatttagc agcagttgac atcaaccgag aaagacccaa  
420

atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgaggttccc  
480

atgtatgatg ttctcctggg aatgaaggca gaacaagcca cggccaagtc ttgngctatt  
540

ttcatccttg gtggccaatc aatgaatgtt tcagttccac cacctgcatt aagatgaaca  
600

agaaaataat tcacttattg atatgnata ttaaagctaa ggggtggtcc ntagggggtt  
660

tngntggnc c  
671

<210> 105  
<211> 670

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<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 105
ggtgggactg gctgtgactg atctctctgg tctaattctt tccagctgct ggagaacttg
60

atgaacttct ggtcggtctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt
120

gttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc
180

atgtccac tcctcttga caactgaggc aacccactga ggcaaattctt gtccattcat
240

agacacccca ggtgatttcc tcgttaggag ttctaaacaag ataacaccaa gactgttagat
300

atcagttta gtgttgctt tctttagctt tgagagctca ggtggccggatccatgc
360

tccagctgta gctatcacgt tgaaatttagc agcagttgac atcaaccgag aaagacccaa
420

atctgcaatt ttagcatttgc tantctcatc aagcaacaca ttgctggatg tgagggtccc
480

atgtatgatg tcctctggg aatgaaggca gaacaagcca cgggccaagt cttgggctat
540

tttcatcctt ggtggccaa tcaatgaatg gttcaanttc ancacctgcn tcaagangaa
600

caagaaaata attncntatg gnnnggatataaaactaagg ggnggnctta ggggtntngn
660

nngnccggcn
670

<210> 106
<211> 662
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 106
ggtgggactg gctgtgactg atctctctgg tctaattctt tccagctgct ggagaacttg
60

atgaacttct ggtcggtctg atggagaagg atcaacacag tgcaaagcga gcttcaacgt
120

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gtttagcaac tcgtcgccaa ctgtggatgc atctctcatc aagtctgcat caaaaacctc  
180

atttgcac tcctcttga caactgaggc aacccactga ggcaaatcta gtccattcat  
240

agacacccca ggtgatttcc tcgttaggag ttctaacaag ataacaccaa gactgttagat  
300

atcagttta gtgttgctt tcttgagctt tgagagctca ggtgcccggt atcccaatgc  
360

tccagctgta gctatcacgt tggaatttagc agcagttgac atcaaccgag aaagacccaa  
420

atctgcaatt ttagcatttg tattctcatc aagcaacaca ttgctggatg tgaggttcca  
480

tgtatgatgt tctnctggga atgaaggcag aacaagccac gggccaagtc ttgngctatt  
540

tcatccttgc gggcaatcaa tgaatgttta anttccncac ctgcttnaga ggaccaagaa  
600

aanattactt attggntggg tattaaagct aaggggggggn cctaagggn tttggnnngc  
660

cc  
662

<210> 107

<211> 792

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 107

tatttacaac tagtgttatac ggagaatgaa aaattgaaga ataataagtt cagctataat  
60

aaactcgagg gagaaaaac aaagaaattc atgataaata gatataactt attaaattta  
120

aggggtgtat ttgcacaccc tgaattatag agattcttat atctttgaga aaataattaa  
180

atggggaaaa aagagataat gactgattga gattgcctc agaattgttc gtttaatat  
240

tggtacgaat ctaatggntt tattctgaaa gatgctcaca agtattgagg gactaataaa  
300

ttgnttataa actactacta aatgagatga gactttaagg ngtactgaag caatatcatt  
360

taaaaaaatga ctactcgcat ttgngtttag aaaaatttatt ttcataaag naaattttnt  
420

ccntttang ataaagccat ttnncttaac cnanngggga nataaaatgg cccccnttca  
480

taaaaaaccc accanctata taaatggatn tataccaacc ttcctangca ccatgccatt  
540

gggatngng gaattaaatt naaaangntt gcnttggaaat gggtaaaaaa ttccaaaact  
600

tnaaccccc ccacaatttt agtggccacn gnaatattnn ttanccgntg gnctttttc  
660

caggaaaacg acccgtaacc aaanggggnn aaaagggaaa gggagatgga ttgcntgnng  
720

gtntgaggct catcccnatt cccaaacatg ttngggnccc aaaaccgaag tncccctgga  
780

ccatggatgn cn  
792

<210> 108  
<211> 573  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 108  
gggactggct gtgactgatc tctctggct aatctttcc agctgctgga gaacttgatg  
60

aacttctggc cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcac tctcatcaag tctgcatcaa aaacctcatt  
180

tgtccactcc tcttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga  
240

caccccgagg tatttcctcg ttaggagttc taacaagata acaccaagac tgtagatatc  
300

agtttttagtg ttgcattct tgagcttga gagctcagggt gccccgtatc caatgctcca  
360

gctgttagcta tcacgttgaa attagcagca gttgacatca acccgagaaa gaccaaaatt  
420

gcaatttagc anttgnattc ttatnaacaa cacaatggtt ggatngang gtnccaagga  
480

ttgangttt ctggaaatga aagganaaa caagccccgg gccaaagntt ggggttattt  
540

tnaancctgg nggncaaan aaangaaagg ttn  
573

<210> 109  
<211> 673  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 109  
gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg  
60

aacttctggc cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcattcaa aaacctcatt  
180

tgtccactcc tctttgacaa ctgaggcaac ccactgaggc aaatctagtc cattcataga  
240

caccccgagg tatttcctcg ttaggattc taacaagata acaccaagac tgttagatatac  
300

agtttttagtg tttgtttct ttagctttt agaagctcag gtgcccggta tcccaaatgc  
360

ttccagctgt agcttatcac cgttggaaat taagcagcaa gttggacatt caacccggag  
420

aaaaagaccc aaaaattttt caaatttttta agcaatttng gnanttcttn aatcaaggcc  
480

aaccaccaat tggnttggga atgggtggaaag ggtttccccca atggtaattt gaagggtttc  
540

ttccctnggg gaaaatggaa aggggcaana aaacaaaggc ccaacngggg ccccaaagggt  
600

nttttggggg ctttattttt tncnaatncc ctttggnggg ggncccaaatt tcnaaantgg  
660

aaattggntt tnn  
673

<210> 110  
<211> 564  
<212> DNA  
<213> soybean  
<220>

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<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 110
actggctgtg actgatctct ctggctaat ctcttccagc tgctggagaa cttgatgaac
60

ttctggtcgt gctgatggag aaggatcaac acagtgc当地 gcgagcttca acgtgtttag
120

caactcgctcg ccaactgtgg atgcatctct catcaagtct gcatcaaaaa cctcatttgc
180

ccactccctct ttgacaactg aggcaaccca ctgaggcaaa tctagtc当地 tc当地agacac
240

cccaggtgat ttccctcgta ggagttctaa caagataaca ccaagactgt agatatcagt
300

tttagtgttt gctttcttga gctttgagag ctcaggtgcc cggtatccca atgctccagc
360

tgtagctatc acgttggaat tagcagcagt tgacatcaac cc当地gaaaaga ccaaaatctg
420

caatttttagc atttgttattc tcatcaagca acacattgct ggatgtgagg ttcccatgta
480

tgatgttctc ctggaaatga aggcaaca agccacggcc aagcttggct atttc当地ct
540

tgtggccaat caatgaatgg tcat
564

<210> 111
<211> 456
<212> DNA
<213> soybean
<220>
<221> misc_feature
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)
<400> 111
actatgagga cagaaaaagg agtccctcca gttgctggtg gtgatgttga agcgggtgg
60

gaggctggag ggaaactagt ccattttgat ggaccaatgg ct当地tacagc tgatgatctc
120

ttgtgtgcaa cagctgagat catggaaag agcacctatg gaactgttta taaggctatt
180

ttggaggatg gaagtcaagt tgc当地ttaaag agattgaggg aaaagatcac taaaggctcat
240

agagaatttg aatcanaagt cagtgttctc ggaaaaatta nacacccaa tgttttggtt
300

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ntgaggccta ttacttggga cccaaagggg aaaagcttnt ggttttgat tcatgtntaa  
360

aggaagtctt gcttnnncc tacatggnaa gtttcggggc tgtcttnat taanggtngg  
420

gnngngctgnn tttaattata attnngngtt tacctt  
456

<210> 112  
 <211> 592  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 112  
 actatgagga cagaaaaagg agtccctcca gttgctggtg gtgatgttga agcaggtggg  
60

gaggctggag ggaaactagt ccattttgat ggaccaatgg cttttacagc tgatgatctc  
120

ttgtgtgcaa cagctgagat catggaaag agcacctatg gaactgttta taaggctatt  
180

ttggaggatg gaagtcaagt tgcagtaaag agattgaggg aaaagatcac taaaggtcat  
240

agagaatttg aatcagaagt cagtgttcta ggaaaaatta gacacccaa tgttttggct  
300

ctgagggcct attacttggg acccaaaggg gaaaagcttc tggttttga ttacatgtct  
360

aaaggaagtc ttgcttctt cctacatggt aagttcgtg tgctgttctt tcattaagtg  
420

ttgggtgtgc tggctttaa ttataatttg gagtttacct tannaatctg gataattcta  
480

atcgagaaac agncaaacaa aancctaag gaacaaccct tancttaat atccatatca  
540

ataagngaaat tatttcttgg tcacatctgat gcaggggggg gnactgaaca tt  
592

<210> 113  
 <211> 460  
 <212> DNA  
 <213> soybean  
 <220>  
 <221> misc\_feature  
 <223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
 <400> 113

gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg  
60

aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcatcaa aaacctcatt  
180

tgtccactcc tcttgacaa ctgaggcaac ccactgagggc aaatcttagtc cattcataga  
240

caccccgagg t gatttcctcg ttaggagttc taacaagata acaccaagac tgtagatatc  
300

agtttttagtg tttgctttct tgagctttga gagctcagggt gcccggatc ccaatgcttc  
360

agctgttagct atcacgttgg aattagcagc agttgacatc aaccgagaaa gaccaaaatc  
420

tgcaatttta gcatttgnat tctcattaaa caacacaatg  
460

<210> 114

<211> 566

<212> DNA

<213> soybean

<220>

<221> misc\_feature

<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)

<400> 114

gggactggct gtgactgatc tctctggtct aatctttcc agctgctgga gaacttgatg  
60

aacttctggt cgtgctgatg gagaaggatc aacacagtgc aaagcgagct tcaacgtgtt  
120

tagcaactcg tcgccaactg tggatgcattc tctcatcaag tctgcatcaa aaacctcatt  
180

tgtccactcc tcttgacaa ctgaggcaac ccactgagggc aaatcttagtc cattcataga  
240

caccccgagg gatttcntcg ttaggagttt taacaagata acaccaagac tgtagatatc  
300

agtttttagtg tttgctttct tgagctttga gagtttaaggg nccggantc ccanngntcn  
360

agttgnagtt atancgttgg aattagcagn agttgcntca accaaaaaag accaaaaatct  
420

gaatttttagc atttgtttt catcaagcaa cacattgntg gatngaggt cccatgtatg  
480

atgttctcct gggaaatgaag gcaaacaagg ccggggcaag gcttgggcta ttttaatcct  
540

tggtgccaa acaatgaaag gttnat  
566

<210> 115  
<211> 16  
<212> DNA  
<213> soybean  
<400> 115  
gactgcgtac caattc  
16

<210> 116  
<211> 16  
<212> DNA  
<213> soybean  
<400> 116  
gatgagtcct gagtaa  
16

<210> 117  
<211> 22  
<212> DNA  
<213> soybean  
<400> 117  
gggtttcaga taaccgtggt cg  
22

<210> 118  
<211> 25  
<212> DNA  
<213> soybean  
<400> 118  
ttgcagatat tttagttgat tggcc  
25

<210> 119  
<211> 24  
<212> DNA  
<213> soybean  
<400> 119  
agttgatgg ctcaaaccat ggcc  
24

<210> 120  
<211> 20  
<212> DNA  
<213> soybean  
<400> 120

ttgcgtgtga tcggattac  
20

<210> 121  
<211> 20  
<212> DNA  
<213> soybean  
<400> 121  
tacctgagtt ctctcaagtc  
20

<210> 122  
<211> 252  
<212> DNA  
<213> soybean  
<220>  
<221> misc\_feature  
<223> n is an undetermined nucleotide (dATP, dCTP, dGTP, or dTTP)  
<400> 122  
gattttagact gcgctgactn tcaaaggaga ctggatttc tccactgaaa ttattcagtg  
60

acaaatcaag ctgcctaagc gagaaatgt ttgcaatgct tgaaggaata tgtccactaa  
120

atggtttct actcaaaatc agaacagaaa gattacgcaa tctacctaaa ctttgaggga  
180

tttgattgtc aaggaggttg ttctctgcat tcagcagtgt aagtgaggat aaatttagaga  
240

gggttagcagg ca  
252